Christopher Hall/R10/USEPA/US 02/09/2010 08:55 AM To Mary Portanova cc Herman Wong

bcc

Subject Re: background

Mary,

I am in Las Vegas for some training but I can break away today if needed. Just figure out a time with Herman and call me at 5 U.S.C. 552(b)(6) to let me know the time. I will find a land line here to take the call.

Chris

Mary Portanova Herman, Chris: can we get together a... 02/09/2010 05:30:52 AM

From: Mary Portanova/R5/USEPA/US

To: Herman Wong/R10/USEPA/US@EPA, Christopher Hall/R10/USEPA/US@EPA

Date: 02/09/2010 05:30 AM

Subject: background

Herman, Chris: can we get together and talk about Beaufort background data some time this morning? I can't tie the two of you in from here, so hopefully you can either get together or tie me in on your line.

Thanks, let me know when/if you're free.

Mary

05/31/2011 05:40 PM

To Dave Bray

cc Alexander Fidis, Doug Hardesty, Juliane Matthews, Julie Vergeront

bcc

Subject Tomorrow's OCS Call - Anchoring Support Vessels

What a powerful line-up of folks you'll have on this call. I think that you'll get along quite nicely without me there. Good luck.

Dave - I am designating you the leader of this call . <u>The leader PIN</u> You'll need to enter that number to get things rolling.

Dan Meyer EPA Region 10 Office of Air, Waste and Toxics 1200 Sixth Avenue Suite 900, MS AWT-107 Seattle, WA 98101 Tel: 206.553.4150

Fax: 206.553.4150

To Doug Hardesty

04/18/2011 07:02 AM

cc bcc

Subject Tentative Check-in with Rodger - Status Update on

**Outstanding Information Requests** 

Doug,

In the event you decide to participate, here are the call details. Call is today from 12 - 1 MOUNTAIN time.

Call-in number 5 U.S.C. 552(b)(6) Code: 5U.S.C. 552(b)(6)

Dan Meyer EPA Region 10 Office of Air, Waste and Toxics 1200 Sixth Avenue Suite 900, MS AWT-107 Seattle, WA 98101

Tel: 206.553.4150 Fax: 206.553.0110

bcc

То

Subject Invitation: March 1, 2011 NO2 Modeling Guidance for Shell

Kulluk OCS Permit Application (Apr 11 01:00 PM PDT in Teleconference Number: 5 U.S.C. 552(b)(6) Conference Code:

5 U.S.C. 552(b)(6)

Janet McCabe requests participants to discuss the extent to which certain elements of March 1, 2011 NO2 modeling guidance are appropriate for Shell Kulluk OCS permit application.

I, Dan Meyer, will not be participating on the call. I am sending you this invitation on behalf of Alan.

To Natasha Greaves

04/06/2011 11:56 AM

cc Dave Bray, Zach Hedgpeth, Paul Boys, Doug Hardesty

bcc

Subject KENAI ROOM

We're meeting in the Kenai Room on the 15th Floor.

Dan Meyer
EPA Region 10
Office of Air, Waste and Toxics
1200 Sixth Avenue
Suite 900, MS AWT-107
Seattle, WA 98101
Tel: 206 553 4150

Tel: 206.553.4150 Fax: 206.553.0110

---- Forwarded by Dan Meyer/R10/USEPA/US on 04/06/2011 11:53 AM -----

From: Dan Meyer/R10/USEPA/US
To: Natasha Greaves/R10/USEPA/US

Cc: Doug Hardesty/R10/USEPA/US, Dave Bray/R10/USEPA/US, Zach

Hedgpeth/R10/USEPA/US@EPA, Paul Boys/R10/USEPA/US@EPA

Date: 04/06/2011 11:53 AM

Subject: Location for April 7 Conference Call with Shell

## Thursday April 7 Shell Conference Call

Time: 2 - 4 pm pacific

Call in number 5 U.S.C. 552(b)(6)
Participant code: 5 U.S.C. 552(b)(6)

Mandatory Participants: Doug, Dan, Natasha Optional Participants: Dave, Zach, Paul

## Agenda:

Identify source group specific potential changes and associated requirements/standards applicability (RICE)

Check status of O3 precursor issues

Monitoring strategy matrix Emissions Inventory preferred format

Disco fuel S-levels

New questions or information requests

Dan Meyer
EPA Region 10
Office of Air, Waste and Toxics
1200 Sixth Avenue
Suite 900, MS AWT-107
Seattle, WA 98101

Tel: 206.553.4150 Fax: 206.553.0110 Doug Hardesty/R10/USEPA/US 06/07/2011 02:01 PM

To Alan Schuler, Alexander Fidis, Andy Hawkins, Dave Bray, Herman Wong, Jayme Ballard, Julie Vergeront

cc Natasha Greaves

bcc

Subject Invitation: EJ discussion with Shell (Jun 7 05:00 PM MDT in Dial U.S.C. 552(b)(6) and then 5 U.S.C. 552(b)(6)

Doug Hardesty/R10/USEPA/US

СС

03/18/2011 10:28 AM

bcc

Subject Fw: Would you have time Monday?

To Dan Meyer, Greaves. Natasha

The number for our call today at 11:00pacific.

Doug Hardesty U.S. EPA Region 10 1435 N Orchard St Boise, ID 83706 208.378.5759

---- Forwarded by Doug Hardesty/R10/USEPA/US on 03/18/2011 11:28 AM -----

From: <Pauline.Ruddy@shell.com>

To: Doug Hardesty/R10/USEPA/US@EPA

Cc: <mark.octane@me.com>, <rgsteen@airsci.com>, <ehansen@Environcorp.com>,

<Nicole.StAmand@shell.com>

Date: 03/14/2011 12:10 PM

Subject: RE: Would you have time Monday?

Doug, let's go with 1230 AK time so 230 your time just in case we need to go over 30 minutes, that ok?

Let's use the following phone information:

#### 5 U.S.C. 552(b)(6)

Participant Code: 5 U.S.C. 55

Thanks!

----Original Message----

From: Hardesty.Doug@epamail.epa.gov [mailto:Hardesty.Doug@epamail.epa.gov] Sent: Monday, March 14, 2011 10:06 AM To: Ruddy, Pauline M SEPCO-EP-AMERICAS Subject: RE: Would you have time Monday?

Do we need more than 30 minutes? Natasha leaves at 3:30 pacific (4:00 boise).

Doug Hardesty U.S. EPA Region 10 1435 N Orchard St Boise, ID 83706 208.378.5759

From: <Pauline.Ruddy@shell.com>
To: Doug Hardesty/R10/USEPA/US@EPA

Date: 03/14/2011 11:01 AM

Subject: RE: Would you have time Monday?

I have 30 minutes at 1 AK time (3 your time) otherwise not till 2 AK and 4 your time. That too late in the day? I can change my schedule if needed.

#### Thanks!

----Original Message----

From: Hardesty.Doug@epamail.epa.gov [mailto:Hardesty.Doug@epamail.epa.gov] Sent: Monday, March 14, 2011 8:57 AM To: Ruddy, Pauline M SEPCO-EP-AMERICAS

Cc: mark.octane@me.com; Greaves.Natasha@epamail.epa.gov; St Amand,

Nicole M SEPCO-UAX/A/SD

Subject: RE: Would you have time Monday?

Pauline, I just talked with Natasha; she will be free after 1:00pacific. So if we can move it back 1 hour (2 works as well if you want to avoid lunch in Alaska), we should be good.

#### Sorry

Doug Hardesty U.S. EPA Region 10 1435 N Orchard St Boise, ID 83706 208.378.5759

From: <Pauline.Ruddy@shell.com>
To: Doug Hardesty/R10/USEPA/US@EPA

Natasha

Greaves/R10/USEPA/US@EPA

Date: 03/14/2011 10:22 AM

Subject: RE: Would you have time Monday?

Thanks Doug, I am thinking 11 AK time, so 1300 your time. That ok?

----Original Message----

From: Hardesty.Doug@epamail.epa.gov [mailto:Hardesty.Doug@epamail.epa.gov] Sent: Monday, March 14, 2011 7:11 AM To: Ruddy, Pauline M SEPCO-EP-AMERICAS

Cc: mark.octane@me.com; St Amand, Nicole M SEPCO-UAX/A/SD;

Greaves.Natasha@epa.gov

Subject: Re: Would you have time Monday?

Early afternoon, mountain time, works for me. I am inviting Natasha Greaves to join me on the call. Let us know when.

Doug Hardesty U.S. EPA Region 10 1435 N Orchard St Boise, ID 83706 208.378.5759

From:
To:

Hardesty/R10/USEPA/US@EPA

Cc:

<Nicole.StAmand@shell.com>

Date:

Subject: Monday?

<Pauline.Ruddy@shell.com>

Doug

<mark.octane@me.com>,

03/11/2011 05:06 PM

Would you have time

Hi Doug, the team have asked to get clarification on a couple things since our last call. would you have time on Monday at all? We would also like to outline for you what is different in our Disco modeling submission we are making on Friday so you are aware and know what to look at.

Thanks Doug!

Cell: 5 U.S.C. 552(b)(6) or office 907-771-7243

Thanks!

Doug Hardesty/R10/USEPA/US 02/08/2011 08:13 AM

To David Coursen

cc Elliott Zenick, smith.kristi, Matthews.Juliane, Julie Vergeront

bcc

Subject Fw: Shell Air Permits

David, the time (10:00-3:00 pacific unless we need more time and with a break for lunch) and call in information for the meeting is below. Please let me know if you would like me to try to organize the conversation so you can hear those parts you are most interested in given the time you have.

Doug Hardesty U.S. EPA Region 10 1435 N Orchard St Boise, ID 83706 208.378.5759

---- Forwarded by Doug Hardesty/R10/USEPA/US on 02/08/2011 09:08 AM -----

## **Shell Air Permits**

Wed 02/09/2011 11:00 AM - 6:00

PM

Location: 19th Floor Conference Room - Call in number 5 U.S.C. 552(b)(6) #

bray.dave@epa.gov, Greaves.Natasha@epa.gov, Janis Hastings/R10/USEPA/US@EPA, Julie

Vergeront/R10/USEPA/US@EPA, Matthews.Juliane@EPA.GOV, Nancy

Helm/R10/USEPA/US@EPA, Paul Boys/R10/USEPA/US@EPA, wong.herman@epa.gov

Resources: IOO Teleconference Line 5 U.S.C. 552(b)(6) Teleconf. Line/R10 IOO Equipment@EPA

#### Description

Required:

Please hold this time for a meeting with Shell regarding their Disco and Kulluk projects. The meeting goal is to discuss a plan with tentative milestones for moving their projects forward while identifying remaining areas of uncertainty that will need further discussion and resolution. The meeting will take a decidedly technical turn about 2 to 2.5 hours in at which time folks without a technical interest can excuse themselves. Herman and I have a separate modeling meeting on Thursday, the 10th, with Shell.

The meeting time might expand as the agenda grows. I see covering both projects in one meeting as a necessary evil; sorry. I will share the draft agenda when I have it so folks can better gage their involvement. We may try to tap HQ in to participate in the PSD v mNSR conversation about the Kulluk.

Expected attendees from Shell: Susan Childs, Shell Marc Stone, Shell Legal Pauline Ruddy, Shell Nicole St. Amand, Shell Mark Schindler, consultant Kirk Lilley, legal consultant John Iani, consultant Rodger Steen, consultant Eric Hansen, consultant Kirk Winges, consultant

Please let me know if you have any questions or concerns.

Doug

Doug Hardesty/R10/USEPA/US 05/24/2011 10:26 AM To Mark Schindler cc Pauline Ruddy

bcc

Subject Re: Action Item List

Mark, I don't think Dan has requested any new info yet. In going through the NSPS and NESHAP, it appears that the fire pumps are likely subject to ZZZZ, so he is trying to decide whether we can add that requirement without specifics about the fire pumps. Also, it looks like at the MLC HPUs are likely subject to iiii which requires 15ppm S diesel. Were you aware of that?

Doug Hardesty U.S. EPA Region 10 1435 N Orchard St Boise, ID 83706 208.378.5759

Mark Schindler Pls. use Pauline's normal #s: 866 761... 05/23/2011 06:13:12 PM

From: Mark Schindler <mark.octane@me.com>
To: Doug Hardesty/R10/USEPA/US@EPA
Cc: Pauline Ruddy <Pauline.Ruddy@shell.com>

Date: 05/23/2011 06:13 PM Subject: Re: Action Item List

Pls. use Pauline's normal #s: 5U.S.C.552(b)(6) . Thanks for touching base with Dan. Can you please advise re: additional information? Have no seen anything today.

On May 23, 2011, at 7:56 PM, Hardesty.Doug@epamail.epa.gov wrote:

> Mark, we have a call to discuss anchoring scheduled for tomorrow at > 1:00pm mountain time. Do you want me to get a call-in number or do you > already have one?

> Also, I see you gave us a deadline of 5/26 for getting back to you on > the final application package; I'll check with Dan whether that is > realistic given that he requested some additional information just > today.

> Doug Hardesty
> U.S. EPA Region 10
> 1435 N Orchard St
> Boise, ID 83706
> 208.378.5759
>

> Cc: Pauline Ruddy <Pauline.Ruddy@shell.com>, Nicole StAmand

>

```
> Doug, here is an updated action ltem list for your review. We are very
> close to completing several more action items, and will hold an internal
> call tomorrow AM to bring closure. So I may send another updated
> version tomorrow prior to our call. Thanx.
>
> Mark
> [attachment "Action Item Table 52311 Updates Rev 4.xlsx" deleted by Doug
> Hardesty/R10/USEPA/US]
```

Doug & Toni Hardesty <a href="mailto:dthardesty@msn.com">dthardesty@msn.com</a>

06/07/2011 09:22 PM

To Doug Hardesty

CC

bcc

Subject FW: Final "Clean" Package Description

----Original Message----

From: Hardesty.Doug@epamail.epa.gov [mailto:Hardesty.Doug@epamail.epa.gov]

Sent: Tuesday, June 07, 2011 9:23 AM

To: Mark Schindler

Cc: Lance Tolson; Nicole StAmand; Pauline Ruddy Subject: Re: Final "Clean" Package Description

Mark, we finally made it through the Disco list. While there are still things being submitted, here are our edits and suggestions for your list.

- 1. We prefer you not include the remand in your final compilation. We will be including it in the record once is enough.
- 2. I don't understand your planned breakout into an App A and B. Can you just include a TOC, a document explaining the submittals what replaced what, etc to the extent that is needed and then begin the list of submittals.
- 3. Add these items:
- 4/7/11 Beaufort Lease Ownership Map
- 4/12/11 Working comparison of emissions Discoverer
  - a. Frontier Discoverer Exceedance/Deviation Report
- 5/10/11 -For the item listed, include the source test info on a separate disk or refer to it on ftp site
- 5/19/11 For Air Sciences Discoverer Emission Inventory, add:
  - a. Discoverer EI
  - b. Discoverer EI GHG only
- 5/20/11 Air Sciences H2SO4 Emission at 100 ppmw engineering calculation
- 5/20/11 Pt Lay data (JUne Nov 2010)
- 5/25/11 Environ Marked up revised Beaufort Permit
- 5/27/11 Mooring process for the Noble Discoverer Drill Ship
- 6/2/11 Discoverer EI CHukchi Allowable emissions

For potential pending items, add:

g. Clarification on how many re-supply ships Shell

wants (8 or 24)

h. A maximum rating of the seldom used sources on icebreakers #1 It also looks like we received items (a), (c), (d). Also, edit item (g) to say ... E-gen FD-8 and seldom used sources

(FD-35)

Finally, if possible, we would like 20 copies on disk and 10 hard copies.

I'll try to send you the Kulluk list next.

Doug Hardesty U.S. EPA Region 10 1435 N Orchard St Boise, ID 83706 208.378.5759

From: Mark Schindler <mark.octane@me.com>

To: Doug Hardesty/R10/USEPA/US@EPA

Cc: Pauline Ruddy <Pauline.Ruddy@shell.com>, Lance Tolson

<Lance.Tolson@shell.com>, Nicole StAmand

<Nicole.StAmand@shell.com>

Date: 05/27/2011 01:52 PM

Subject: Final "Clean" Package Description

Hi Doug,

In response to R10's request for a final "clean" package of information regarding the Discoverer, I have attached a description of this package. We hope to receive your notice next week that no further information is needed for the Discoverer and thus we can submit the final package as requested. It is our intent to provide responses to Natasha's recent questions early in the week so your notice can be delivered as soon as possible.

In order to achieve consistency with the proposed Kulluk final "clean" package description submitted earlier, we are proposing to compile a similar pointer document that records/tracks all the submittals to date, rather than including all the submittals. Current submittals cover 500+ pages, so we hope you will agree the following proposed approach is more efficient and acceptable:

- 1. Preparing a cover letter
- 3. Including a memo summarizing the differences among the modeling submittals. This is important in cases such as comparing the May 19 submittal to the March 18 submittal; the impact analysis from March 18 is outdated in comparison to the May 19 impact analysis. Submitting the obsolete March 18 memo again merely for record purposes could lead to confusion if a reviewer did not bother to compare this memo to its replacement (the May 19 memo).

We look forward to your feedback. Thank you.

Mark

[attachment "Discoverer Submittals-05242011MJSA.docx" deleted by Doug Hardesty/R10/USEPA/US]

Herman Wong/R10/USEPA/US

To Andy Hawkins, alan.schuler

04/07/2011 11:13 AM bcc

Subject Fw: COARE Clarification Request, and Second Information

and Data Request.

The below emails deal with the critical Ri # which I ignored because it had nothing to do with non-guideline model approval. You may need to address it if used in the applications to derive mixing heights.

СС

---- Forwarded by Herman Wong/R10/USEPA/US on 04/07/2011 11:11 AM -----

From: Herman Wong/R10/USEPA/US

To: "Kirk Winges" < kwinges@Environcorp.com>

Date: 03/13/2011 09:01 AM

Subject: Re: COARE Clarification Request, and Second Information and Data Request.

That is what we thought as well.

"Kirk Winges" I was in the middle of an email with the... 03/12/2011 11:00:01 AM

From: "Kirk Winges" <kwinges@Environcorp.com>
To: "Ken Richmond" <krichmond@Environcorp.com>

Cc: Herman Wong/R10/USEPA/US@EPA

Date: 03/12/2011 11:00 AM

Subject: Re: COARE Clarification Request, and Second Information and Data Request.

I was in the middle of an email with the same info. Rib is used in the mixing height interpretation on the profiler data, but not in the model evaluation stuff. I think that's where the confusion comes from. I was confused about the same thing a few weeks ago until Ken and Bart set me straight.

Kirk Winges Sent from my iPad

On Mar 12, 2011, at 10:56 AM, "Ken Richmond" < krichmond@Environcorp.com > wrote:

Herman, Rib is not used in any fashion in the model evaluation for the 3 field studies!

For the other request how about a table with a row for each variable in SFC and PFL and a column for each case. The cells will say where each variable came from.

From: Wong.Herman@epamail.epa.gov [mailto:Wong.Herman@epamail.epa.gov]

Sent: Saturday, March 12, 2011 9:50 AM

To: Ken Richmond

Cc: Bart Brashers; Kirk Winges; Nicole.StAmand@shell.com; Elleman.Robert@epamail.epa.gov

Subject: RE: COARE Clarification Request, and Second Information and Data Request.

Ken:

Kirk, you and I really should not be working on weekends. We are to old and wise to be doing this. Nevertheless...

On the first, it has no bearing on Kulluk. We are interested in knowing how concentrations will change using five different Rib's, let's say for Case #1.

On the second, I am interested in what was done to develop the met input files for the AERMOD dispersion program for the three field studies in the five cases. I have no interest in going back in time.

h

From: "Ken Richmond" < krichmond@Environcorp.com>

To: "Kirk Winges" < kwinges@Environcorp.com >, Herman Wong/R10/USEPA/US@EPA

Cc: <Nicole.StAmand@shell.com>, Robert Elleman/R10/USEPA/US@EPA, <br/>bbrashers@Environcorp.com>

Date: 03/12/2011 09:09 AM

Subject: RE: COARE Clarification Request, and Second Information and Data Request.

My thoughts in general: Is the request for the Model Evaluation or for Kulluk meteorological data sets? The Rib has no bearing on the model evaluation so what kind sensitivity tests are you referring too? We can provide frequency distributions of the profiler observed mixing heights with different assumptions for 2010.

As for your 2<sup>nd</sup> request, do you want an explanation of all the variables in each of the three spreadsheets used to construct the met files for the 3 field studies for each of the 5 cases?

The minimum necessary variables are wind speed, wind direction (for AERMOD not COARE), air temp, sea temp (or ta-ts), RH and Zi. That's it. Zi can also be estimated, but measurements would generally be preferred if they are reliable and consistent with the other variables. Turbulent parameters are optional, but sigma-theta measurements seem to aid model performance. We did not use sigma-w in the model evaluation because it was not always available and the study authors warned the measurements that were available were unreliable.

Are you asking us to go back to the 30 year old field studies and try and figure how the author of the OCD and CALPUFF model evaluations can up with some of the variables? We simply used what they used.

From: Kirk Winges

Sent: Saturday, March 12, 2011 7:59 AM To: Wong.Herman@epamail.epa.gov

Cc: Ken Richmond; mark.octane@me.com; Nicole.StAmand@shell.com;

<u>Pauline.Ruddy@shell.com</u>; <u>Elleman.Robert@epamail.epa.gov</u>

Subject: Re: COARE Clarification Request, and Second Information and Data Request.

Yes, Herman. Let's talk on Monday first thing. I need to look through the files to see how difficult and/or time-consuming it will be to pull the items you have asked for together. My sense is that it won't take too long, but I need to look through the spreadsheets specifically. I am tied up today (Saturday), but I think I can get up to Lynnwood tomorrow.

Talk to you Monday.

Kirk Winges Sent from my iPad

On Mar 12, 2011, at 7:34 AM, "Wong.Herman@epamail.epa.gov" < Wong.Herman@epamail.epa.gov> wrote:

Kirk:

Well...they called me at home to summarize a high level conference call and to say that I **must** finish my review and have a recommendation document completed by 04 April 2011. So, I will be asking additional questions and hopefully, Shell will provide responses to save me time and research, and to finish on schedule.

I will be reviewing Shell's responses to the 2nd info & data request plus clarifications early next week. However, we have a request related to the critical Ri # after an initial scan. Can Shell provide us information on the sensitivity of the concentration to the choice of Rib (i.e., 0.01, 0.03, 0.05, 0.01, and 0.25)?

When Rob Elleman returns from his travel, I would like to schedule a meeting with Ken and you (Nicole?) in our office to go over the CD containing the evaluations. As a prelude to the meeting, can Shell provide a table that list all the meteorological variables required by the AERMOD dispersion program (i.e., surface and profile file) and how each variable was obtained (e.g., measurement, OCD extracted, independently calculated...etc.) for the three field studies including any passed through variables? Of particular importance will be those variables derived specifically for a marine environment as oppose to a terrestrial application. These variables

should be highlighted and explained in text and equations, formula, Fairall papers...etc. And, if there are other options not listed to obtain/derive these variables, please discuss them. This request goes to addressing Condition ii in Section 3.2.2.e of Appendix W which states "The model can be demonstrated to be applicable to the problem on a theoretical basis;". I assumed this Condition ii will be the most time consuming for me from the beginning. (It appears that you may have done something similar to this request in Attachment A for the Chukchi Sea and Beaufort.)

We can talk on Monday about these two request and my schedule?

Nicole, do you want to participate?

Herman Wong Atmospheric Scientist/Regional Modeling Contact USEPA Region 10 Office of Environmental Assessment (OEA-095) 1200 Sixth Ave, Suite 900 Seattle, WA 98101-1128 206.553.4858

Email: wong.herman@epa.gov

From: "Kirk Winges" < kwinges@Environcorp.com>

To: Herman Wong/R10/USEPA/US@EPA, Robert Elleman/R10/USEPA/US@EPA

Cc: <Nicole.StAmand@shell.com>, <Pauline.Ruddy@shell.com>, "Ken Richmond" <krichmond@Environcorp.com>,

<mark.octane@me.com>

Date: 03/11/2011 05:01 PM

Subject: RE: COARE Clarification Request, and Second Information and Data Request.

## Hi Herman:

Didn't think you worked on Friday – I might have tried to get this out sooner today. Anyhow, here it is. In response to your questions:

- 1. Right now. The attached document is intended to address all the issues you raised both in your second information request as well as clarification items on our responses to your first request.
- 2. There was no problem in doing the sensitivity analysis for Case 1 with the three different Mixing Height limitations you asked for. It is provided as Attachment B to the response document. Just for information, I only did this for Pismo and Carpinteria, since there were no Case 1 calculated mixing heights below 25 m for the Cameron, LA tracer study.

# Kirk Winges | Principal Consultant

ENVIRON International Corporation 19020 33rd Avenue W, Suite 310 Lynnwood, WA 98036

V: 425.412.1813 | F: 425.412.1840

From: Wong.Herman@epamail.epa.gov [mailto:Wong.Herman@epamail.epa.gov]

Sent: Friday, March 11, 2011 2:02 PM

To: Kirk Winges

Cc: Ken Richmond; Nicole.StAmand@shell.com; Pauline.Ruddy@shell.com;

Elleman.Robert@epamail.epa.gov

**Subject:** RE: COARE Clarification Request, and Second Information and Data Request.

#### Kirk:

- 1. Can you let me know when you will be providing responses to our Second Information and Data Request, and clarifications to your responses of our first Request?
- 2. Can you let me know if there are any issues with doing the 0-m, 5-m and 15-m evaluations for Case 1?

Thanks,

Herman and working at home.

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Herman Wong/R10/USEPA/US To Bart Brashers

СС

bcc

09/02/2010 10:23 AM

Subject Fw: Scheduled Conference Call

Herman Wong Atmospheric Scientist/Regional Modeling Contact **USEPA** Region 10 Office of Environmental Assessment (OEA-095) 1200 Sixth Ave, Suite 900 Seattle, WA 98101-1128 206.553.4858

Email: wong.herman@epa.gov

----- Forwarded by Herman Wong/R10/USEPA/US on 09/02/2010 10:33 AM -----

Herman Wong/R10/USEPA/US From:

J.B. Dennison < jdennison@hoeflernet.com>, bbaxter@tbsys.com, Clive.Lee@Kippzonen.com, Ken To:

Richmond <a href="mailto:krichmond@environcorp.com">krichmond@environcorp.com</a>, Nicole.StAmand@shell.com, Steve Mackey <smackey@slrconsulting.com>, Victor Cassella <victor.cassella@kippzonen.com>,

elleman.robert@epa.gov 08/30/2010 07:17 AM

Date: Scheduled Conference Call Subject:

## All:

Tuesday, 21 September 2010 works for seven respondents. Below is the call-in information.

Tuesday Day:

21 September 2010 Date: Time: 11 AM Eastern

8 AM Pacific 7 AM Alaska 5 PM Clive

Duration: Two hours

Dial-in #: Code:

Herman

## Herman Wong/R10/USEPA/US

To Bob Baxter

02/01/2010 09:10 AM

cc Robert Elleman

bcc

Subject Re: Fw: Initial Phone Conference with EPA

Let's do a conference call this morning amongst the three of us at 10:30 AM.



# Agenda:

- 1. TB PR
- 2. Draft Guidance
- 3. Conference Call with Dennision
- 4. Other things

## Herman Wong/R10/USEPA/US

To Clive Lee

08/10/2010 07:05 AM

cc Bob Baxter, "J.B. Dennison", Robert Elleman, Steve Mackey, Victor Cassella

bcc

Subject RE: Conference Call Number for MTP 5-P at Endeavor Island, AK Discussion.

Thanks Clive. The conference call line has been reserved for one hour, so we should be done by 6 PM your time.

Clive and Victor. below are a few topics we would like to discuss with KZ during the conference call.

- 1. Define the high inversion conditions that result in measurement errors.
- 2. Discuss if there are any other conditions that might affect measurements.
- 3. Help in determining what criteria the operations and data we should use to appropriately flag data and determine a timeline for delivery of this document.
- 4. Decide how many radiosonde launches are needed and under what conditions they should be flown in order to better define the items above.
- 5. Discuss communications with Shell on the additional radiosonde calibrations.
- 6. Other comments?
- 7. Schedule follow-up conference call

Clive Lee	Hello all I am back from holiday and I a	08/10/2010 01:15:47 AM
From:	Clive Lee <clive.lee@kippzonen.com></clive.lee@kippzonen.com>	)II-
То:	"J.B. Dennison" <jdennison@slrconsulting.com>, Victor C <victor.cassella@kippzonen.com>, Herman Wong/R10/U <bbaxter@tbsys.com>, Robert Elleman/R10/USEPA/US@ <smackey@slrconsulting.com></smackey@slrconsulting.com></bbaxter@tbsys.com></victor.cassella@kippzonen.com></jdennison@slrconsulting.com>	JSEPA/US@EPA, Bob Baxter
Date:	08/10/2010 01:15 AM	
Subject:	RE: Conference Call Number for MTP 5-P at Endeavor Is	land, AK Discussion.

Hello all

I am back from holiday and I am in the office in the Netherlands for the next couple of days.

The proposed conference call time of 11 AM Eastern, 8 AM Pacific, 7 AM Alaska is 5 PM locally, so no problem for me.

With best regards,

Clive Lee

Business Manager Meteorology & Atmospheric Science

Kipp & Zonen B.V.

\_\_\_\_\_

Delftechpark 36, 2628 XH Delft P.O. Box 507, 2600 AM Delft The Netherlands

T: +31 (0) 15 2755 214 F: +31 (0) 15 2620 351

http://www.kippzonen.com/

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----Original Message----

From: J.B. Dennison [mailto:jdennison@slrconsulting.com]

Sent: 09 August 2010 20:09

To: Victor Cassella; Wong.Herman@epamail.epa.gov; Bob Baxter; Clive Lee; Elleman.Robert@epamail.epa.gov; Steve Mackey

Subject: RE: Conference Call Number for MTP 5-P at Endeavor Island, AK Discussion.

Victor,

Wow, that looks pretty bad. How well do the profilers work in that much smoke?

Will Clive be able to call in for this? I know EPA had scheduled the call very early so it would not be too late for Victor to be able to call in. JB

----Original Message----

From: Victor Cassella [mailto:Victor.Cassella@kippzonen.com]

Sent: Monday, August 09, 2010 7:57 AM

To: Wong.Herman@epamail.epa.gov; Bob Baxter; Clive Lee; J.B. Dennison; Elleman.Robert@epamail.epa.gov; Steve Mackey

Subject: RE: Conference Call Number for MTP 5-P at Endeavor Island, AK Discussion.

Good morning to all,

Kipp & Zonen and Attex need more time to analysis the data before the conference call this Wednesday. The Air Quality conditions in Moscow have shut down the city;

http://online.wsj.com/article/SB10001424052748704388504575418823130481884.html

not allowing Attex to devote the proper time to answer the question that were asked.

I will be available for the call this Wednesday but I do request a follow-up conference call next week to discuss in greater detail the questions on the MPT5, allowing Kipp & Zonen to consult with Attex on the questions that were asked.

- Best regards, Victor

Victor A. Cassella US Sales & Marketing Manager Scientific Markets

Kipp & Zonen USA Inc.

125 Wilbur Place Bohemia, NY 11716 USA

T: +1 (0) 631.589.2065 x322

C: +1 (0) 631.245.5516 F: +1 (0) 631.589.2068

www.kippzonen.com

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----Original Message----

From: Wong.Herman@epamail.epa.gov [mailto:Wong.Herman@epamail.epa.gov]

Sent: Thursday, August 05, 2010 5:02 PM

To: Victor Cassella; Bob Baxter; Clive Lee; J.B.Dennison;

Elleman.Robert@epamail.epa.gov; Steve Mackey

Subject: Conference Call Number for MTP 5-P at Endeavor Island, AK Discussion.

#### All:

The conference call has been scheduled for next week. Below is the information you need to participate in the discussions.

When: Wednesday, 11August 2010

Time: 11 AM Eastern, 8 AM Pacific, 7 AM Alaska, and 4 PM

Central European

Dial-in #: 5 U.S.C. 552(b)(6) Code: 5 U.S.C. 552(b)(6)

I will send an agenda to each of you before the call.

Herman

Herman Wong/R10/USEPA/US To Kirk Winges

09/20/2010 01:10 PM

cc bcc

Subject Fw: Invoice and Shell Meeting

Below is an email I sent to Bob Baxter so that he can call in on Thursday.

----- Forwarded by Herman Wong/R10/USEPA/US on 09/20/2010 01:09 PM -----

From: Herman Wong/R10/USEPA/US
To: Bob Baxter <br/>
Sbaxter@tbsys.com>

Date: 09/15/2010 01:14 PM Subject: Invoice and Shell Meeting

Hi Bob:

For next Thursday's meeting with Shell, please use the below calling in number. The temperature profiler discussion be first so that J.B. and you can leave or disconnect when done.

Day: Thursday

Date: 23 September 2010

Time: 9:30 AM

Dial-in #: 5 U.S.C. 552(b)(6)

Thanks for the great work under the existing contract.

Herman

## Herman Wong/R10/USEPA/US

To "Kirk Winges" cc Nicole.StAmand

02/22/2011 01:40 PM

hcc

Subject Re: Response to your memo

Thanks Kirk.

"Kirk Winges" Hi Herman: 02/18/2011 01:50:53 PM

From: "Kirk Winges" <kwinges@Environcorp.com>
To: Herman Wong/R10/USEPA/US@EPA

Cc: Doug Hardesty/R10/USEPA/US@EPA, <Pauline.Ruddy@shell.com>, <mark.octane@me.com>,

<Gene.Pavia@UICUmiaq.com>

Date: 02/18/2011 01:50 PM Subject: Response to your memo

#### Hi Herman:

I got your voice mail – sorry I was off at trial prep. on another case. I'm sorry to hear about your back. Hope it is nothing serious. As a veteran of back surgery and a number of MRIs, I can sympathize. Back injuries are the worst.

I did get your memorandum and information request on Monday. In an effort to speed things along, we have prepared the attached response to the items you requested. The attached should answer the questions you raised. We will provide the computer files to you, including the spreadsheets and data files we used as it states in your Item (8). But we think this response, plus the information provided in the protocol (Appendix B in particular) and in the December report Ken put together, should provide you with enough information to get us through Section 3.2.2.e.

As you know I will not be at the meeting next week, I'll be in your home state soaking up some rays. I hope it goes well and I hope you feel better.

Kirk

# Kirk Winges | Principal Consultant

ENVIRON International Corporation 19020 33rd Avenue W, Suite 310 Lynnwood, WA 98036

V: 425.412.1813 | F: 425.412.1840

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Herman Wong/R10/USEPA/US To Nicole.StAmand

01/12/2011 10:33 AM

cc bcc

Subject RE: Fw: Meetings during AMS, 24-28 January 2011

## Nicole:

1. For the AERMOD-COARE meeting next week, I had difficulty in getting a conference room yesterday because of the lateness. I managed to find a room this morning but it only seats 4 but you can get 6. Hence, I will send out an announcement of the meeting for Tuesday, 18 November 2011, 9:300 AM to Noon. Your call-in number is:



I am not planning to do an agenda. Do you have agenda items?

2. I will call J.B. once I hear from Elleman about Wednesday 3 PM with KZ. J.B. or I will let pass on the details once the location and time is confirmed. Baxter and J.B. will put an agenda together.

#### Herman

## Herman, Ken Richmond, Bart B. and... 01/12/2011 08:38:59 AM

From: <Nicole.StAmand@shell.com>

To: Herman Wong/R10/USEPA/US@EPA

Date: 01/12/2011 08:38 AM

Subject: RE: Fw: Meetings during AMS, 24-28 January 2011

#### Herman,

Ken Richmond, Bart B. and maybe Tim Martin will attend. I'm unsure if Kirk is able to make it that week.

Also can you please set up a call in for next week's AERMOD meeting? I likely will not be flying down.

Thank you,

## Nicole

----Original Message----

From: Wong.Herman@epamail.epa.gov [mailto:Wong.Herman@epamail.epa.gov]

Sent: Wednesday, January 12, 2011 5:41 AM

To: J.B. Dennison; St Amand, Nicole M SEPCO-UAX/A/SD

Cc: Bob Baxter; Elleman.Robert@epamail.epa.gov

Subject: RE: Fw: Meetings during AMS, 24-28 January 2011

## All:

Before I confirm, I need to hear from Elleman and invite Nicole.

Nicole: would this time be acceptable? Do you want someone from Environ there as well, i.e., Kirk Winges?

Also, I think we need to have a short conference call or meeting amongst ourselves before meeting with KZ.

Herman

> Cc:

> Date:

"J.B. Dennison" <jdennison@slrconsulting.com> To: Bob Baxter <br/> <br/>bbaxter@tbsys.com>, Herman Wong/R10/USEPA/US@EPA, Robert Elleman/R10/USEPA/US@EPA Date: 01/12/2011 12:53 AM RE: Fw: Meetings during AMS, 24-28 January 2011 Subject: Herman, I can make the 3pm on Wednesday meeting. Would you like me to confirm that this works for K&Z? Also Bob, I put in a second request to Shell to allow you to use their data in your presentation, but I have not heard back from them yet. I will let you know as soon as I hear back. Sorry for the delay. JΒ ----Original Message----From: Bob Baxter [mailto:bbaxter@tbsys.com] Sent: Tuesday, January 11, 2011 8:42 PM To: Wong.Herman@epamail.epa.gov; Elleman.Robert@epamail.epa.gov; J.B. Dennison Subject: Re: Fw: Meetings during AMS, 24-28 January 2011 Herman and Rob, For me the best time would be at about 3 PM on Wednesday. Let me know if that works for others. - Bob On 1/10/2011 9:54 AM, Wong.Herman@epamail.epa.gov wrote: > Rob and Bob: > What is availability including times to meet on Wednesday, 26 January > 2011 with J.B. and KZ? > Herman > ---- Forwarded by Herman Wong/R10/USEPA/US on 01/10/2011 09:55 AM > From: <Nicole.StAmand@shell.com> > To: Herman Wong/R10/USEPA/US@EPA

<jdennison@slrconsulting.com>

01/10/2011 09:35 AM

```
> Subject:
                                RE: Meetings during AMS, 24-28 January 2011
> Herman,
> Please work with JB on scheduling a time for the K&Z meeting. I spoke
> with him last week and it looks like K&Z will have to meet on
> or earlier that week. The rest of the modeling group can meet with you
> on either Wednesday or Thursday to discuss AERMOD-COARE.
> Thank you,
> Nicole
> ----Original Message----
> From: Wong.Herman@epamail.epa.gov [mailto:Wong.Herman@epamail.epa.gov]
> Sent: Monday, January 10, 2011 8:32 AM
> To: St Amand, Nicole M SEPCO-UAX/A/SD
> Cc: Elleman.Robert@epamail.epa.gov; Bob Baxter; J.B.Dennison; Steve
> Mackey; Kirk Winges; Ken Richmond; Tim Martin; Bart Brashers
> Subject: Meetings during AMS, 24-28 January 2011
> Hi Nicole:
> I would like to schedule back-2-back meetings to discuss (1) the
> profiler performance and (2) AERMOD-COARE status. Before I can
> schedule the meeting with KZ, I need to know their availability to
> with us. AERMOD-COARE is a separate meeting.
> The AMS technical sessions start on Monday, 24 January 2011 and ends
> noon(?), Thursday, 27 January 2011. It may be difficult to get
everyone
> together as some of us will be attending certain technical sessions.
> Nevertheless, please let me the days that work for everyone to meet
> with KZ and to meet on AERMOD-COARE.
> Bob Baxter plans to contact J.B regarding KZ availability.
> include the independent auditor but we want to include him, Dave
Johnson
> (?).
> Thanks,
> Herman Wong
> Atmospheric Scientist/Regional Modeling Contact
> USEPA Region 10
> Office of Environmental Assessment (OEA-095)
> 1200 Sixth Ave, Suite 900
> Seattle, WA 98101-1128
> 206.553.4858
> Email: wong.herman@epa.gov
```

>			

## Herman Wong/R10/USEPA/US

To Nicole.StAmand

02/21/2011 07:20 AM

cc Pauline.Ruddy, Doug Hardesty, Mahbubul Islam

bcc Robert Elleman

Subject Re: Meeting next week

#### Hi Nicole:

Okay with Tim Martin. However, the agenda as presented to me is not on how AERMOD-COARE is applied or the modeling protocol but on COARE science. I intend to keep COARE, modeling protocols, responses to EAB remands related to modeling, and application air quality modeling analyses (i.e., meetings, written correspondence, information and data requests...etc.) separate as it is confusing and demanding enough. In my view, it is better to have separate paper trails so as not to blur the line.

The Thursday, 24 February 2011 meeting at 1:30 PM to 2:45 PM was requested by Shell to discuss responses to the first COARE information and data request and will include Doug Hardesty. Similarly, I am requesting that Shell include someone from their management team (i.e., Pauline R. or Mark S.) to participate in the technical presentation and discussion. Notwithstanding this meeting, I prefer the dynamics and interaction between OEA and Shell technical staff to be maintained.

Today is a holiday but you can touch base with me tomorrow if you like. Also, the forecast is for snow starting mid-week. I don't think it will happen, but unless Congress passes a budget bill/continual resolution to keep us operating, the federal government could shutdown after 04 March 2011.

As a friendly reminder, OEA is the **LEAD** on COARE and we will base our recommendation on what is presented and contained in the record and nothing else.

Teleconference info:

5 U.S.C. 552(b)(6)



Have a nice day.

Herman Wong Atmospheric Scientist/Regional Modeling Contact USEPA Region 10 Office of Environmental Assessment (OEA-095) 1200 Sixth Ave, Suite 900 Seattle, WA 98101-1128 206.553.4858

Email: wong.herman@epa.gov

## Herman, Can you please set up a telec...

02/18/2011 12:43:11 PM

From: <Nicole.StAmand@shell.com>

To: Herman Wong/R10/USEPA/US@EPA

Cc: <Pauline.Ruddy@shell.com>
Date: 02/18/2011 12:43 PM
Subject: Meeting next week

#### Herman,

Can you please set up a teleconference line for next week's meeting? Tim will need to call in and participate by helping answer any questions that might pop up.

# Thanks!

Nicole St. Amand

Shell Exploration & Production Company

3601 C Street, Suite 1334, Anchorage, Alaska 99503

**Tel:** +1 907 646 7152

Email:

Internet: http://www.shell.com/eandp-en

Janet McCabe/DC/USEPA/US

03/07/2011 07:14 PM

To Dennis McLerran, Michelle Pirzadeh, Doug Hardesty, Janis Hastings

СС

bcc

Subject Fw: Invitation: Shell / EPA R10 Call (Mar 8 03:00 PM CST in Teleconference 5 U.S.C. 552(b)(6) Participant Passcode

l eleconferenc U.S.C. 552(b)(6)

I'm confused by this for a couple of reasons. It says it's 3 Central time--is that right? And it also seems to be before the call Gina was to have had with Pete (which right now appears on my calendar at 4:30 eastern, though she needs to move that later). Also, I have a call with ECOS from 3:30-4:30 and since Gina will miss the end of that call, I'll need to be there....so many challenges!

Janet McCabe
Principal Deputy Assistant Administrator
Office of Air and Radiation, USEPA
Room 5426K, 1200 Pennsylvania Avenue NW
Washington, DC 20460
202-564-3206
mccabe.janet@epa.gov

-----Forwarded by Janet McCabe/DC/USEPA/US on 03/07/2011 10:12PM

Calendar Entry

Meeting Invitation Peter.E.Slaiby has invited you to a meeting

**Subject** 

Shell / EPA R10 Call

When

Begins: 03/08/2011 03:00 PM CST Ends: 03/08/2011 03:30 PM CST

Where

Location Teleconference 5 U.S.C. 552(b)(6)

Chair

Description / Agenda

Shell call with EPA Region 10 only.

Teleconference:

Moderator: Pete Slaiby

EPA R10 Participants: Dennis McLerran Doug Hardesty

Janet McCabe

Janis Hastings (tentative)

Peter.E.Slaiby@shell.com

## Sent by

<Michelle.D.Romak@shell.com>

#### Invitees

To (required): McLerran.Dennis@epa.gov, Hardesty.Doug@epa.gov, Susan.Childs@shell.com, Sara.Glenn@shell.com,

McCabe.Janet@epa.gov

cc (optional): Doug Hardesty/R10/USEPA/US, Dennis McLerran/R10/USEPA/US, hastings.janis@epa.gov

Shell Participants: Pete Slaiby Susan Childs Sara Glenn (tentative) Julia Miller/DC/USEPA/USToDoug Hardesty05/16/2011 11:25 AMccAmit Srivastava

bcc

Subject Fw: Call between EPA and Shell Oil

Doug,

Will you have any materials that I could pass on to Gina in advance of this call?

Thanks,

-Julia

\*

Julia Miller
Special Assistant to the Assistant Administrator
Office of Air and Radiation
U.S. Environmental Protection Agency
ARN Room 5406 E
(202) 564-3277
miller.julia@epa.gov

---- Forwarded by Julia Miller/DC/USEPA/US on 05/16/2011 02:24 PM -----

## Call between EPA and Shell Oil

Tue 05/17/2011 4:30 PM - 5:00 PM

Attendance is for Gina McCarthy

Chair: Dennis McLerran/R10/USEPA/US
Sent By: Matthew Magorrian/R10/USEPA/US

Location: Conference line: Rooms

Conf Code: 5 U.S.C. 552(b)(6) : Restricted/R10 Rooms Restricted@EPA

Seattle 14 FI RA Conf Room/R10 Rooms

Doug Hardesty/R10/USEPA/US@EPA, Gina McCarthy/DC/USEPA/US@EPA, Janet

McCabe/DC/USEPA/US@EPA, Janis Hastings/R10/USEPA/US@EPA, Michelle

Pirzadeh/R10/USEPA/US@EPA, Peter.E.Slaiby@shell.com, Sara.Glenn@shell.com,

Susan.Childs@SHELL.com

Optional: michelle.d.romak@shell.com

Time zones: This entry was created in a different time zone. The time in that time zone is: Tue 05/17/2011

1:30 PM PDT2:00 PM PDT

Resources: RAs Suite 8662993188 PC 5698740269/R10 RAs Suite Equip/R10 RAs Suite Equipment@EPA

Description

Required:

Meeting topic: Status update of Shell OCS Permits

Conference call number: 5 U.S.C. 552(b)(6); Meeting Code: 5 U.S.C. 552(b)(6)

EPA Program Office POC: Doug Hardesty/IOO 8-5759

Shell POC: Michelle Romak (assistant to Pete Slaiby); 907-771-7210

EPA Scheduling POC: Matt Magorrian; 206-553-1234

**Shell Participants:** 

Pete Slaiby: <a href="mailto:Peter.E.Slaiby@shell.com">Peter.E.Slaiby@shell.com</a>; Vice President, Shell Exploration & Production- AK

Susan Childs: Susan.Childs@shell.com; AK Support Integrator, Shell Exploration & Production- AK

Sara Glenn: <u>Sara.Glenn@shell.com</u>; Government Relations, Shell

#### **Personal Notes**

#### Kelly Fortin/R4/USEPA/US

05/26/2011 01:21 PM

To Anna Wood, Christine Vineyard, Dave Bray, David Coursen, Dennis Abraham, Doug Hardesty, Emlyn Velez-Rosa, Gerardo Rios, Juliane Matthews, Julie Vergeront, Kathleen Cox, Keri Powell, Liliana Villatora, Lionel MacKenzie, Lorie Schmidt, Lynn Hutchinson, Natasha Greaves, Ronald Fein, Sean Lakeman, Viorica Petriman, Phil Lorang

cc Gregg Worley

bcc

Subject Fw: Part 55 NESHAP Applicability Question

## Follow-up per our discussion today-

As I mentioned on the call, I had a couple of emails back and forth with a consultant regarding whether they should include ZZZZ in their application. I contacted R10 to inquire about they were handling this and forwarded some language from one of the Shell permits to the consultant. This discussion chain is below.

The applicant came back to us with an argument at to why they did not believe subpart ZZZZ applies. We have also had other applicants include ZZZZ - or simply indicate that they we have completed their project by 2013 when the new requirements apply.

The general feeling here was that there wasn't really a good precedent, and the if standard was intended to reduce a pollutant that otherwise was not a criteria pollutant, we weren't really comfortable relying on the reductions in CO as making this "rationally related." I am sure we could argue that quite a number of NESHAPs that control a HAP would also reduce criteria pollutants. So, we should decide at what point collateral impacts make something "rationally related." It is an easier argument if the pollutant targeted by the NESHAP is also a criteria pollutant or identified precursor (and I don't recall if we did any more detailed analysis on ZZZZ to see if the HAP was also a criteria pollutant).

I think it is likely that the applicant was concerned that they couldn't meet the targeted CO reductions. Hence, we might want to give some thought as to what pollutant they would need to offset under a technical exemption.

## Kelly

----- Forwarded by Kelly Fortin/R4/USEPA/US on 05/26/2011 03:31 PM -----

From: Ramesh Narasimhan <RNarasim@trinityconsultants.com>

To: Kelly Fortin/R4/USEPA/US@EPA

Date: 07/16/2010 01:45 PM

Subject: Re: Part 55 NESHAP Applicability Question

Thanks Kelly. I believe Shell's applicability analysis was done prior to updated RICE MACT that became effective on May 3rd which has some potential emission limitations for diesel engines at area sources.

Thanks

Ramesh Narasimhan

Trinity Consultants 2800 Veterans Blvd. Suite 214 Metairie, LA 70002

Phone: 504.828.5845

Fax: 504.828.7858

URL: http://www.trinityconsultants.com

From: Fortin.Kelly@epamail.epa.gov

To: Ramesh Narasimhan <RNarasim@trinityconsultants.com>

Date: 07/16/2010 12:25 PM

Subject: Re: Part 55 NESHAP Applicability Question

#### Ramesh-

Both our counsel and I have researched this question of Subpart ZZZZ. We cannot find any guidance on if the "rationally related" provisions apply to surrogates. I really don't think this has ever come up. Our advice is to go ahead and include the ZZZZ NESHAP as an applicable requirement. If you have a compelling reason to do otherwise, please feel free to make your case.

I looked over the requirements, and I would expect the source to be able to meet the reporting requirements. Transocean is developing a monitoring system that could likely be designed to provide this data. Shell did include ZZZZ as an applicable requirement on their Alaska project. I have included the relevant portion of their application below.

Hope this helps-

Kelly

Shell has estimated emissions of HAP from Shell's exploration drilling program of 3.50 tons per year for all HAP combined based on requested limits and other limits assumed under the permit application and supporting materials submitted to EPA (Shell 2/23/09 Rev. App., Attachment D, Table 2-2, and Attachment E, pp E.1-12 to -13). This makes the project an area source of HAP. The only emission units potentially subject to a current Part 63 NESHAP that applies to area sources are the compression-ignition internal combustion engines (RICE), identified as FD-1 to FD-20, which are potentially subject to NESHAP ZZZZ, 40 C.F.R. Part 63, Subpart ZZZZ. Under that rule, engines at area sources constructed before June 12, 2006 do not have to meet the requirements of 40 C.F.R. Part 63, Subparts A and ZZZZ, including the initial notification, if they fall within 40 C.F.R. § 63.6590(b)(3). See also 40 C.F.R. § 63.6590(a)(1)(iii). Engines FD-1 to FD-8, FD-12 to FD-18, and FD-20 fall within that exemption because they are existing compression-ignition stationary RICE constructed before June 12, 2006. The diesel MLC compressor engines (FD-9 to FD-11) and the Caterpillar C7 Logging Winch Engine (FD-19) were constructed after June 12, 2006, and therefore qualify as new engines. As provided in 40 C.F.R. § 63.6590(c), however, because these are compression-ignition stationary RICE located at an area source, these emission units comply with Subpart ZZZZ by meeting the requirements of 40 C.F.R. Part 60, Subpart IIII, for

compression-ignition engines. As discussed above in Section 2.4, FD-9 to FD-11 and FD-19 are subject to NSPS IIII.

At this time, it does not appear that emission units on the Discoverer are subject to any Section 112 standards except for the diesel MLC compressor engines (FD-9 to FD-11) and the Caterpillar C7 Logging Winch Engine (FD-19), which comply with Subpart ZZZZ by meeting the requirements of NSPS Subpart IIII. As discussed above, Condition A.3, as well as 40 C.F.R. §§ 52.21(r)(3) and 55.6(a)(4)(iii), make clear that Shell is obligated to comply with all other federal requirements not included in this OCS/PSD proposed permit. All applicable standards promulgated under Section 112 will be included in the Title V operating permit for Shell."

From: Ramesh Narasimhan <RNarasim@trinityconsultants.com>

To: Kelly Fortin/R4/USEPA/US@EPA

Date: 06/30/2010 02:20 PM

Subject: Re: Part 55 NESHAP Applicability Question

Thanks for your help Kelly.

Ramesh Narasimhan

Trinity Consultants 2800 Veterans Blvd. Suite 214 Metairie, LA 70002

Phone: 504.828.5845 Fax: 504.828.7858

URL: http://www.trinityconsultants.com

From: Fortin.Kelly@epamail.epa.gov

To: Ramesh Narasimhan <RNarasim@trinityconsultants.com>

Date: 06/30/2010 12:55 PM

Subject: Re: Part 55 NESHAP Applicability Question

#### Ramesh-

Just wanted to touch base with you. I have addressed this question

before with respect to a toxic pollutant that is also a VOC - in which case the answer is yes, the NESHAP applies. However, I haven't addressed collateral CO impacts. I have asked for our counsel's input and will get back with you ASAP.

Kelly

From: Ramesh Narasimhan <RNarasim@trinityconsultants.com>

To: Kelly Fortin/R4/USEPA/US@EPA

Date: 06/24/2010 10:36 AM

Subject: Part 55 NESHAP Applicability Question

Kelly,

I have a question about applicability of NESHAP promulgated under Section 112 of the CAA for OCS sources subject to 40 CFR Part 55.

40 CFR 55.13(e) specifies that "40 CFR part 61, together with any other provisions promulgated pursuant to section 112 of the Act, shall apply if rationally related to the attainment and maintenance of Federal or State ambient air quality standards or the requirements of part C of title I of the Act."

Can you please provide some additional guidance on interpreting "rationally related to the attainment and maintenance..."? Does this mean that if a NESHAP rule requires control of a surrogate pollutant for which a NAAQS exists, then that rule would be applicable? For e.g. 40 CFR 63 Subpart ZZZZ includes CO control requirements for certain diesel engines at area sources. Would that be an example of an applicable NESHAP?

Thanks for your help.

Ramesh Narasimhan

Trinity Consultants 2800 Veterans Blvd. Suite 214 Metairie, LA 70002

Phone: 504.828.5845 Fax: 504.828.7858

URL: http://www.trinityconsultants.com

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taking of any action in reliance upon, this information by persons or

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Received this in error, please contact the sender and delete the material

from any computer.

Kendra Tyler/R10/USEPA/US

To Kendra Tyler

03/07/2011 07:11 PM

cc Doug Hardesty, Janis Hastings

bcc

Subject RE: Shell / EPA R10 Call-

And to be clear- 11:30 Alaska Time, 12:30 Seattle Time

Kendra Tyler Special Assistant Office of the Regional Administrator US EPA, Region 10 Phone: 206-553-0041

Phone: 206-553-004 Cell: 206-310-8915

Kendra Tyler Hi Michelle- If it works with Janet McCa... 03/07/2011 06:22:36 PM

From: Kendra Tyler/R10/USEPA/US
To: <Michelle.D.Romak@shell.com>

Cc: Doug Hardesty/R10/USEPA/US@EPA, Janis Hastings/R10/USEPA/US@EPA

Date: 03/07/2011 06:22 PM Subject: RE: Shell / EPA R10 Call

Hi Michelle-

If it works with Janet McCabe's schedule, let's move the call up to 11:30 am.

Thanks! Kendra Tyler Special Assistant Office of the Regional Administrator US EPA, Region 10

Phone: 206-553-0041 Cell: 206-310-8915

#### Kendra, If you want to move this meetin... 0

03/07/2011 06:04:22 PM

From: <Michelle.D.Romak@shell.com>
To: Kendra Tyler/R10/USEPA/US@EPA

Cc: Dennis McLerran/R10/USEPA/US@EPA, <Michelle.D.Romak@shell.com>

Date: 03/07/2011 06:04 PM Subject: RE: Shell / EPA R10 Call

## Kendra,

If you want to move this meeting up by 15 or 30 minutes (to start at 11:30 or 11:45 am Alaska time), please let me know. It is workable on our end to do so.

Best regards,

#### Michelle D. Romak

Executive Assistant to Pete Slaiby, Vice President Shell Exploration & Production Company, Alaska

3601 C Street, Suite 1314 • Anchorage, AK 99503

Direct: (907) 771-7210 • Cell: (907) 250-7261 • Fax: (907) 646-7135

Email: Michelle.D.Romak@shell.com Internet: <a href="http://www.shell.us/alaska/">http://www.shell.us/alaska/</a>

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#### ----Original Appointment----

From: Romak, Michelle SERC-UAX/A On Behalf Of Slaiby, Peter E SERC-UAX/A

Sent: Monday, March 07, 2011 4:18 PM

To: Slaiby, Peter E SERC-UAX/A; Dennis McLerran (McLerran.Dennis@epa.gov);

Hardesty.Doug@epa.gov; Childs, Susan A SEPCO-UAX/A/SD; Glenn, Sara B SHLOIL-GRA;

McCabe.Janet@epa.gov

Cc: Doug Hardesty/R10/USEPA/US; Dennis McLerran/R10/USEPA/US; hastings.janis@epa.gov

Subject: Shell / EPA R10 Call

When: Tuesday, March 08, 2011 12:00 PM-12:30 PM (GMT-09:00) Alaska. Where: Teleconference 5 U.S.C. 552(b)(6) Participant Passcode 5 U.S.C. 552(b)(6)

Shell call with EPA Region 10 only.

Teleconference: 5 U.S.C. 552(b)(6)

Participant Passcode: 5 U.S.C. 552(b)(6)

Moderator: Pete Slaiby

#### **EPA R10 Participants:**

Dennis McLerran

**Doug Hardesty** 

Janet McCabe

Janis Hastings (tentative)

## **Shell Participants:**

**Pete Slaiby** 

Susan Childs

Sara Glenn (tentative)

## Mark Schindler <mark.octane@me.com>

05/20/2011 08:50 AM

>

To Doug Hardesty

СС

bcc

Subject Re: Friday Telecon to discuss Stack Tests

```
3PM mountain time will work.
                                                         Thank you.
On May 19, 2011, at 5:23 PM, Hardesty.Doug@epamail.epa.gov wrote:
> Sorry Mark, I have a conflict I missed. How about 3:00pm mountain?
>
     Doug Hardesty
    U.S. EPA Region 10
>
    1435 N Orchard St
    Boise, ID 83706
    208.378.5759
> From:
                   Doug Hardesty/R10/USEPA/US
> To:
             Mark Schindler <mark.octane@me.com>
                   05/19/2011 03:15 PM
> Date:
                   Re: Friday Telecon to discuss Stack Tests
> Subject:
> 2:00pm mountain works for me.
    Doug Hardesty
>
    U.S. EPA Region 10
>
    1435 N Orchard St
>
    Boise, ID 83706
>
     208.378.5759
>
>
>
                   Mark Schindler <mark.octane@me.com>
> From:
             Doug Hardesty/R10/USEPA/US@EPA
> To:
                  05/19/2011 02:02 PM
> Date:
> Subject:
                   Friday Telecon to discuss Stack Tests
>
> Hi Doug,
> Pauline asked me to set up a meeting to discuss the captioned issues.
> We will have AS and ENVIRON on the call. Can you pls. advise what your
> availability is tomorrow between 2-4:30 PM your time? Probably need
> hour+. Thanks.
> Mark
>
```

To Doug Hardesty

cc bcc

06/09/2011 12:51 PM

Subject Re: Quick Conference call re: modeling

```
Confirmed Kirk W can do it, trying to confirm Tim.
On Jun 9, 2011, at 3:50 PM, Hardesty.Doug@epamail.epa.gov wrote:
> Thanks.
>
>
     Doug Hardesty
    U.S. EPA Region 10
>
    1435 N Orchard St
    Boise, ID 83706
    208.378.5759
> From:
                   Mark Schindler <mark.octane@me.com>
> To:
             Doug Hardesty/R10/USEPA/US@EPA
> Cc:
             Pauline Ruddy <Pauline.Ruddy@shell.com>, Nicole StAmand
             <Nicole.StAmand@shell.com>, Tim Martin <tmartin@airsci.com>,
             Kirk Winges <kwinges@Environcorp.com>
                   06/09/2011 01:40 PM
> Date:
> Subject:
                   Re: Quick Conference call re: modeling
> I will accept in advance of obtaining confirmation from Tim and Kirk.
> At a minimum, we need to hear about this important item. Tim/Kirk,
> please confirm you can call in.
> On Jun 9, 2011, at 3:19 PM, Hardesty.Doug@epamail.epa.gov wrote:
>>
>> Is there any chance we can hold a 30-min conf call with your modelers
>> discuss an important item at 2:00mountain time today?
>>
>> If so, here is a conf line: 5 U.S.C. 552(b)(6), then 5 U.S.C. 552(b)(6)
>>
>>
     Doug Hardesty
>>
     U.S. EPA Region 10
     1435 N Orchard St
>>
     Boise, ID 83706
>>
     208.378.5759
>>
>>
>
>
>
```

Mark Schindler <mark.octane@me.com> 06/07/2011 02:37 PM To Doug Hardesty

cc Pauline Ruddy, Nicole StAmand

bcc

Subject Re: Discussion about EJ analysis

Doug, the call is a go from our end. I have confirmed Tim, Kirk, and me. Kirk may have to sign-off at 4:30. Thank you. On Jun 7, 2011, at 5:24 PM, Hardesty.Doug@epamail.epa.gov wrote:

> If your team is available to discuss the EJ analysis le number ready at 5:00pm mountain time... 5 U.S.C. 552(b)(6)

> If this doesn't work, I'll try to get a call in tomorrow.

> Doug Hardesty

> U.S. EPA Region 10

> 1435 N Orchard St

> Boise, ID 83706

> 208.378.5759

>

Mark Schindler <mark.octane@me.com> 06/09/2011 12:40 PM To Doug Hardesty

cc Pauline Ruddy, Nicole StAmand, Tim Martin, Kirk Winges

bcc

Subject Re: Quick Conference call re: modeling

I will accept in advance of obtaining confirmation from Tim and Kirk. At a minimum, we need to hear about this important item. Tim/Kirk, please confirm you can call in.

On Jun 9, 2011, at 3:19 PM, Hardesty.Doug@epamail.epa.gov wrote:

> Is there any chance we can hold a 30-min conf call with your modelers to
> discuss an important item at 2:00mountain time today?
> If so, here is a conf line: 5 U.S.C. 552(b)(6)
> Doug Hardesty
> U.S. EPA Region 10
> 1435 N Orchard St
> Boise, ID 83706
> 208.378.5759

04/07/2011 03:36 PM

To Doug Hardesty, Janet McCabe, Michelle.D.Romak, Peter.E.Slaiby, Sara.Glenn, Susan.Childs

cc Janis Hastings, Kevin\_Simpson, Michael\_Johnson, Michelle Pirzadeh

bcc

Subject Information Update - Description has changed: Call with Pete Slaiby/Shell-AK and Dennis McLerran/EPA

Meeting topic: Status update of Shell OCS Permits

Conference call number: 5 U.S.C. 552(b)(6) Meeting Code: 5 U.S.C. 552(b)(6)

EPA Program Office POC: Doug Hardesty/IOO 8-5759

Shell POC: Michelle Romak (assistant to Pete Slaiby); 907-771-7210

EPA Scheduling POC: Matt Magorrian; 206-553-1234

**Shell Participants:** 

Pete Slaiby: <a href="Peter.E.Slaiby@shell.com">Peter.E.Slaiby@shell.com</a>; Vice President, Shell Exploration & Production- AK Susan Childs: <a href="Susan.Childs@shell.com">Susan.Childs@shell.com</a>; AK Support Integrator, Shell Exploration & Production- AK

Sara Glenn: Sara.Glenn@shell.com; Government Relations, ShellRelations, Shell

05/05/2011 12:01 PM

To Doug Hardesty, Janet McCabe, Michelle.D.Romak, Peter.E.Slaiby, Sara.Glenn, Susan.Childs

cc Janis Hastings, kevin\_simpson, michael\_johnson, Michelle Pirzadeh, Patrick\_McCormick

bcc

Subject Information Update - There are multiple changes: Call with Pete Slaiby/Shell-AK and Michelle Pirzadeh/EPA

Meeting topic: Status update of Shell OCS Permits. Michelle Pirzadeh will be attending this call for Dennis McLerran

Conference call number: 5 U.S.C. 552(b)(6) Meeting Code: 5 U.S.C. 552(b)(6)

EPA Program Office POC: Doug Hardesty/IOO 8-5759

Shell POC: Michelle Romak (assistant to Pete Slaiby); 907-771-7210

EPA Scheduling POC: Matt Magorrian; 206-553-1234

**Shell Participants:** 

Pete Slaiby: <a href="Peter.E.Slaiby@shell.com">Peter.E.Slaiby@shell.com</a>; Vice President, Shell Exploration & Production- AK Susan Childs: <a href="Susan.Childs@shell.com">Susan.Childs@shell.com</a>; AK Support Integrator, Shell Exploration & Production- AK

Sara Glenn: Sara.Glenn@shell.com; Government Relations, Shell

06/14/2011 10:34 AM

To Doug Hardesty, Janet McCabe, Michelle.D.Romak, Peter.E.Slaiby, Sara.Glenn, Susan.Childs

cc Janis Hastings, kevin\_simpson, Michelle Pirzadeh, Patrick\_McCormick

bcc

Subject Information Update - Room has changed: Call with Pete Slaiby/Shell-AK and Dennis McLerran/EPA

Meeting topic: Status update of Shell OCS Permits

Conference call number: 5 U.S.C. 552(b)(6) Meeting Code: 5 U.S.C. 552(b)(6)

## **Shell Participants:**

Pete Slaiby: Peter.E.Slaiby@shell.com; Vice President, Shell Exploration & Production- AK

Susan Childs: Susan.Childs@shell.com; AK Support Integrator, Shell Exploration & Production- AK

Sara Glenn: Sara.Glenn@shell.com; Government Relations, Shell

## **Congressional Invitees:**

Michael Johnson, Office of Sen. Begich

Patrick McCormick, Office of Sen. Murkowski & Senate Energy Committee

#### Other Contacts:

EPA Program Office POC: Doug Hardesty/IOO 8-5759

Shell POC: Michelle Romak (assistant to Pete Slaiby); 907-771-7210

EPA Scheduling POC: Matt Magorrian; 206-553-1234

To Doug Hardesty, michelle.d.romak, Peter.E.Slaiby, Sara.Glenn, Susan.Childs

cc bcc

03/16/2011 05:52 PM

Subject Invitation: Call with Pete Slaiby/Shell-AK and Dennis

McLerran/EPA (Apr 7 03:30 PM PDT in Seattle 14 FI RA Conf Room/R10 Rooms Restricted/R10 Rooms Restricted@EPA)

Meeting topic: Status update of Shell OCS Permits

Conference call number: 5 U.S.C. 552(b)(6) Meeting Code: 5 U.S.C. 552(b)(6)

EPA Program Office POC: Doug Hardesty/IOO 8-5759

Shell POC: Michelle Romak (assistant to Pete Slaiby); 907-771-7210

EPA Scheduling POC: Matt Magorrian; 206-553-1234

**Shell Participants:** 

Pete Slaiby: <a href="Peter.E.Slaiby@shell.com">Peter.E.Slaiby@shell.com</a>; Vice President, Shell Exploration & Production- AK Susan Childs: <a href="Susan.Childs@shell.com">Susan.Childs@shell.com</a>; AK Support Integrator, Shell Exploration & Production- AK

Sara Glenn: Sara.Glenn@shell.com; Government Relations, ShellRelations, Shell

Dennis To Doug Hardesty, Susan.Childs McLerran/R10/USEPA/US

Sent by: Matthew Magorrian bcc

03/17/2011 09:29 AM Subject Information Update - Description has changed: Call with Pete

Slaiby/Shell-AK and Dennis McLerran/EPA

Meeting topic: Status update of Shell OCS Permits

Conference call number: 5 U.S.C. 552(b)(6) Meeting Code: 5 U.S.C. 552(b)(6)

EPA Program Office POC: Doug Hardesty/IOO 8-5759

Shell POC: Michelle Romak (assistant to Pete Slaiby); 907-771-7210

EPA Scheduling POC: Matt Magorrian; 206-553-1234

**Shell Participants:** 

Pete Slaiby: Peter.E.Slaiby@shell.com; Vice President, Shell Exploration & Production- AK

Susan Childs: Susan.Childs@shell.com; AK Support Integrator, Shell Exploration & Production- AK

Sara Glenn: Sara.Glenn@shell.com; Government Relations, Shell

03/16/2011 03:15 PM

To Doug Hardesty, Susan. Childs

cc Janis Hastings

bcc

Subject Invitation: Call with Pete Slaiby/Shell-AK and Dennis

McLerran/EPA (Mar 24 08:30 AM PDT in Seattle 14 FI RA

Conf Room/R10 Rooms Restricted/R10 Rooms

Restricted@EPA)

Meeting topic: Status update of Shell OCS Permits

Conference call number: 5 U.S.C. 552(b)(6) Meeting Code: 5 U.S.C. 552(b)(6)

EPA Program Office POC: Doug Hardesty/IOO 8-5759

Shell POC: Michelle Romak (assistant to Pete Slaiby); 907-771-7210

EPA Scheduling POC: Matt Magorrian; 206-553-1234

**Shell Participants:** 

Pete Slaiby: <a href="Peter.E.Slaiby@shell.com">Peter.E.Slaiby@shell.com</a>; Vice President, Shell Exploration & Production- AK Susan Childs: <a href="Susan.Childs@shell.com">Susan.Childs@shell.com</a>; AK Support Integrator, Shell Exploration & Production- AK

Sara Glenn: Sara.Glenn@shell.com; Government Relations, Shell

03/16/2011 03:08 PM

To Janet McCabe, Michelle Pirzadeh, Michelle.D.Romak

cc Janis Hastings

bcc Doug Hardesty

Subject Rescheduled: Call with Pete Slaiby/Shell-AK and Dennis McLerran/EPA (Mar 24 08:30 AM PDT in Seattle 14 FI RA Conf Room/R10 Rooms Restricted/R10 Rooms

Restricted@EPA)

03/11/2011 11:32 AM

To Janet McCabe, michelle.d.romak

cc Janis Hastings, Michelle Pirzadeh

bcc Doug Hardesty

Subject Rescheduled: Call with Pete Slaiby, VP, Shell AK (Apr 18 11:00 AM PDT in Seattle 14 FI RA Conf Room/R10 Rooms

03/11/2011 11:33 AM

To Janet McCabe, Michelle.D.Romak

cc Janis Hastings, Michelle Pirzadeh

bcc Doug Hardesty

Subject Rescheduled: Call with Pete Slaiby, VP, Shell AK (Apr 7 03:30 PM PDT in Seattle 14 FI RA Conf Room/R10 Rooms

03/11/2011 11:36 AM

To Janet McCabe, Michelle.D.Romak

cc Janis Hastings, Michelle Pirzadeh

bcc Doug Hardesty

Subject Rescheduled: Call with Pete Slaiby, VP, Shell AK (Jun 27 11:00 AM PDT in Seattle 14 FI RA Conf Room/R10 Rooms

03/11/2011 11:36 AM

To Janet McCabe, Michelle.D.Romak

cc Janis Hastings, Michelle Pirzadeh

bcc Doug Hardesty

Subject Rescheduled: Call with Pete Slaiby, VP, Shell AK (May 16 11:00 AM PDT in Seattle 14 FI RA Conf Room/R10 Rooms

03/11/2011 11:34 AM

To Janet McCabe, michelle.d.romak

cc Janis Hastings, Michelle Pirzadeh

bcc Doug Hardesty

Subject Rescheduled: Call with Pete Slaiby, VP, Shell AK (May 2 11:00 AM PDT in Seattle 14 FI RA Conf Room/R10 Rooms

03/11/2011 11:35 AM

To Janet McCabe, Michelle.D.Romak

cc Janis Hastings, Michelle Pirzadeh

bcc Doug Hardesty

Subject Rescheduled: Call with Pete Slaiby, VP, Shell AK (May 2 11:00 AM PDT in Seattle 14 FI RA Conf Room/R10 Rooms

03/11/2011 11:33 AM

To Janet McCabe, michelle.d.romak

cc Janis Hastings, Michelle Pirzadeh

bcc Doug Hardesty

Subject Rescheduled: Call with Pete Slaiby, VP, Shell AK (May 31 11:00 AM PDT in Seattle 14 FI RA Conf Room/R10 Rooms

04/21/2011 01:48 PM

To Janet McCabe, Peter.E.Slaiby

cc Kevin\_Simpson, Michael\_Johnson, Michelle Pirzadeh, Michelle.D.Romak

bcc Doug Hardesty

Subject Information Update - There are multiple changes: Call with

Pete Slaiby, Shell Oil & Dennis McLerran, EPA R10

Meeting topic: Opportunity for Dennis and Pete to connect before EPA Administrator Jackson speaks with Marvin

Odum, President of Shell Oil

Priority: High

Scheduling POC: Matt Magorrian/EPA 206-553-1234 Shell POC: Michelle Romak/Shell 907-771-7210

#### <Nicole.StAmand@shell.com>

03/14/2011 01:03 PM

To Doug Hardesty, Pauline.Ruddy

cc ehansen, mark.octane, rgsteen, Natasha Greaves

bcc

Subject RE: Would you have time Monday?

Just to make sure we have the call in # setup this time. :)

# 5 U.S.C. 552(b)(6)

#### Nicole

----Original Message----

From: Hardesty.Doug@epamail.epa.gov [mailto:Hardesty.Doug@epamail.epa.gov] Sent: Monday, March 14, 2011 10:26 AM To: Ruddy, Pauline M SEPCO-EP-AMERICAS

Cc: ehansen@Environcorp.com; mark.octane@me.com; St Amand, Nicole M

SEPCO-UAX/A/SD; rgsteen@airsci.com; Greaves.Natasha@epa.gov

Subject: RE: Would you have time Monday?

That works. Thanks

Doug Hardesty U.S. EPA Region 10 1435 N Orchard St Boise, ID 83706 208.378.5759

From: <Pauline.Ruddy@shell.com>
To: Doug Hardesty/R10/USEPA/US@EPA

<ehansen@Environcorp.com>, <Nicole.StAmand@shell.com>

Date: 03/14/2011 12:10 PM

Subject: RE: Would you have time Monday?

Doug, let's go with 1230 AK time so 230 your time just in case we need to go over 30 minutes, that ok?

Let's use the following phone information:

#### 5 U.S.C. 552(b)(6

Thanks!

----Original Message----

From: Hardesty.Doug@epamail.epa.gov [mailto:Hardesty.Doug@epamail.epa.gov]

Sent: Monday, March 14, 2011 10:06 AM To: Ruddy, Pauline M SEPCO-EP-AMERICAS Subject: RE: Would you have time Monday?

Do we need more than 30 minutes? Natasha leaves at 3:30pacific (4:00boise).

Doug Hardesty U.S. EPA Region 10 1435 N Orchard St Boise, ID 83706 208.378.5759

From: <Pauline.Ruddy@shell.com>
To: Doug Hardesty/R10/USEPA/US@EPA

Date: 03/14/2011 11:01 AM

Subject: RE: Would you have time Monday?

I have 30 minutes at 1 AK time (3 your time) otherwise not till 2 AK and 4 your time. That too late in the day? I can change my schedule if needed.

#### Thanks!

----Original Message----

From: Hardesty.Doug@epamail.epa.gov [mailto:Hardesty.Doug@epamail.epa.gov] Sent: Monday, March 14, 2011 8:57 AM To: Ruddy, Pauline M SEPCO-EP-AMERICAS

Cc: mark.octane@me.com; Greaves.Natasha@epamail.epa.gov; St Amand,

Nicole M SEPCO-UAX/A/SD

Subject: RE: Would you have time Monday?

Pauline, I just talked with Natasha; she will be free after 1:00pacific. So if we can move it back 1 hour (2 works as well if you want to avoid lunch in Alaska), we should be good.

## Sorry

Doug Hardesty U.S. EPA Region 10 1435 N Orchard St Boise, ID 83706 208.378.5759

From: <Pauline.Ruddy@shell.com>
To: Doug

Hardesty/R10/USEPA/US@EPA

Cc: <mark.octane@me.com>,

<Nicole.StAmand@shell.com>,

Natasha

Greaves/R10/USEPA/US@EPA

Date: 03/14/2011 10:22 AM

Subject: RE: Would you have time

Monday?

Thanks Doug, I am thinking 11 AK time, so 1300 your time. That ok?

----Original Message----

From: Hardesty.Doug@epamail.epa.gov [mailto:Hardesty.Doug@epamail.epa.gov] Sent: Monday, March 14, 2011 7:11 AM To: Ruddy, Pauline M SEPCO-EP-AMERICAS

Cc: mark.octane@me.com; St Amand, Nicole M SEPCO-UAX/A/SD;

Greaves.Natasha@epa.gov

Subject: Re: Would you have time Monday?

Early afternoon, mountain time, works for me. I am inviting Natasha Greaves to join me on the call. Let us know when.

Doug Hardesty U.S. EPA Region 10 1435 N Orchard St Boise, ID 83706 208.378.5759

From:

<Pauline.Ruddy@shell.com>

To:

Doug

Hardesty/R10/USEPA/US@EPA

Cc:

<mark.octane@me.com>,
<Nicole.StAmand@shell.com>

Date:

03/11/2011 05:06 PM

Subject:

Would you have time Monday?

Hi Doug, the team have asked to get clarification on a couple things since our last call. would you have time on Monday at all? We would also like to outline for you what is different in our Disco modeling submission we are making on Friday so you are aware and know what to look at.

Thanks Doug!

Cell: 5 U.S.C. 552(b)(6) or office 907-771-7243

Thanks!

## <Pauline.Ruddy@shell.com>

03/25/2011 09:05 AM

To Doug Hardesty, mark.octane

CC

bcc

Subject RE: Draft Agenda for Workshops



#### Thanks!

----Original Message----

From: Hardesty.Doug@epamail.epa.gov [mailto:Hardesty.Doug@epamail.epa.gov] Sent: Friday, March 25, 2011 8:04 AM

To: Mark Schindler

Cc: Ruddy, Pauline M SEPCO-UAX/A/SD
Subject: Re: Draft Agenda for Workshops

Do we have a call in number for our call right now?

Doug Hardesty U.S. EPA Region 10 1435 N Orchard St Boise, ID 83706 208.378.5759

From: Mark Schindler <mark.octane@me.com>

To: Doug Hardesty/R10/USEPA/US@EPA

Cc: Pauline.Ruddy@shell.com
Date: 03/25/2011 09:26 AM

Subject: Draft Agenda for Workshops

Doug, here is a draft agenda we can go through today in our telecon.

[attachment "Shell-R10 Seattle Workshops Agenda Final.docx" deleted by Doug Hardesty/R10/USEPA/US]

Robert Elleman/R10/USEPA/US 12/01/2010 12:07 PM

To Ann Williamson cc Herman Wong

bcc

Subject Shell will be push EPA to approve AERMOD-COARE before Herman gets back

Ann,

I know you are out on leave right now, but I want to fill you and Herman in on events as they happen.

I received this email from Kirk Winges today. Along with some other information I have gotten today, it appears as though Shell intends to submit an application soon using the model (AERMOD-COARE) that they have been developing for a Title V application. This is a scenario Herman has warned me about for a couple months. It will be a big problem.

Herman has been clear to me (I think ... Herman can assess my words here and let me know) that there are still several steps before we would accept that model for an application. Shell has paced the work to be done by next summer. They could have pushed the work faster and perhaps had it ready by now. Instead, they will be asking for us to approve their model before it is ready. Herman has made it crystal clear to me that he cannot approve a model before it has been vetted by him and possibly others.

Also, we are clear that I will not make any decisions while he is gone. There is not much I can tell Kirk other than the general steps that need to be completed and that only Herman can make a decision on acceptability.

I will talk to Kirk and I will offer to conference call with Roger.

Rob

-----

Robert Elleman, Ph.D.
Meteorologist
EPA Region 10
Seattle, WA
elleman.robert@epa.gov

----- Forwarded by Robert Elleman/R10/USEPA/US on 12/01/2010 11:49 AM -----

From: "Kirk Winges" < kwinges@Environcorp.com>

To: Robert Elleman/R10/USEPA/US@EPA, Roger Brode/RTP/USEPA/US@EPA, "Ken Richmond"

<krichmond@Environcorp.com>, <tmartin@airsci.com>, <Nicole.StAmand@shell.com>, "Bart

<Lance.Tolson@SHELL.com>, Herman Wong/R10/USEPA/US@EPA

Date: 12/01/2010 10:53 AM

Subject: Follow-up

#### Hi Rob and Roger:

Recognizing that Herman is not available until after the first of the year, we didn't want the process we have been following to stop. In our last meeting we discussed two additional follow-up items to provide the final materials so that EPA could make a decision on the acceptability (in this case) for use of the

## COARE-AERMOD approach. Those two items were:

- 1. Evaluation of the COARE-AERMOD approach with a third data set (Carpenteria, CA) for approval under the provisions of Section 3.2.2.e
- 2. Presentation of the previous two data sets with the Cameron, LA and Pismo Beach, CA data separated, rather than combined.

Ken has completed these two tasks and we are ready to provide you with the information. However, we thought it might be a good idea to discuss this with you first in a conference call. The goals of this conference call would be twofold: to discuss the format for presentation of the information, and to make certain this is the final information needed by EPA to allow approval of the COARE-AERMOD approach. If there are lingering questions, we need to flush them out now because Shell is eager to get a modeling protocol to EPA, and the model selection is an obvious critical part of any protocol.

The other topic I would like to address is the correction of the VOLUME source problem in AERMOD when used with PVMRM. I tried to send an email last Wednesday with my look at the code in AERMOD, although it appears it may have been blocked by EPA virus filters. I "think" I found the problem, and proposed a simple fix, but I would like Roger in particular to take a quick look at that to see if I've correctly diagnosed the error and proposed an acceptable fix, or at least one that could be used on a case-by-case basis for this application. VOLUME sources are critical to our modeling approach in the Artic as is the use of PVMRM.

Let me know your availability for a call, and I'll be happy to set it up.

Thanks, Kirk

# Kirk Winges | Principal Consultant

ENVIRON International Corporation 19020 33rd Avenue W, Suite 310 Lynnwood, WA 98036 V: 425.412.1813 | F: 425.412.1840

Robert Elleman/R10/USEPA/US 11/15/2010 05:11 PM To Ann Williamson, bbrashers, Herman Wong, krichmond, kwinges, Nicole.StAmand, Roger Brode, tmartin, Tyler Fox

cc bcc

. . .

Subject Invitation: GoToMeeting Invitation - R10/AQMG/Shell Meeting on AERMOD-COARE. Meeting starts at 9:30PST, GoToMeeting setup at 9:15 (Nov 22 09:15 AM PST in See GoToMeeting information below)

TIME NOTE: The GoToMeeting will open at 9:15 PST for Ken, Rob, Herman, etc. to get set up and make sure everything works. The meeting itself will start at 9:30 PST and is intended to last 1.5 hours but may go 2 hours, if necessary.

1. Please join my meeting.

## 5 U.S.C. 552(b)(6)

2. Use your microphone and speakers (VoIP) - a headset is recommended. Or, call in using your telephone.

Dial + 5 U.S.C. 552(b)(6)

Audio PIN: Shown after joining the meeting

Meeting ID: 5 U.S.C. 552(b)(6)

If you cannot access the webinar software, you should still be able to call in and listen.

Robert Elleman/R10/USEPA/US 06/09/2010 03:37 PM To Herman Wong

cc bcc

Subject Re: talking points for tomorrows meeting

Herman,

I read through the document, albeit quite quickly. I think they are on the right track. However, we will need to discuss the suitability of the UAF data in its current 10 km and vertical resolution form. It would be prudent for Shell or its contractors to get UAF to run the model with higher vertical resolution. And if there is a focus on the Beaufort, they will need a nest at higher resolution.

I also wonder about their use of OCD for the short-term. Is that appropriate?

See you tomorrow. Rob

## -----Herman Wong/R10/USEPA/US wrote: -----

To: "Ken Richmond" <a href="mailto:krichmond@Environcorp.com">krichmond@Environcorp.com</a>>

From: Herman Wong/R10/USEPA/US

Date: 06/09/2010 01:30PM

Cc: "Bart Brashers" <a href="mailto:sbrashers@Environcorp.com">sbrashers@Environcorp.com</a>, "Kirk Lilley" <a href="mailto:kirk.lilley@comcast.net">kirk.lilley@comcast.net</a>, "Kirk Winges" <a href="mailto:kwinges@Environcorp.com">kwinges@Environcorp.com</a>, "Lance Tolson" <a href="mailto:shell.com">Lance.Tolson@shell.com</a>, "John Iani" <a href="mailto:slig@vnf.com">slig@vnf.com</a>, Mahbubul Islam/R10/USEPA/US@EPA, <a href="mailto:mark.octane@me.com">mark.octane@me.com</a>, "Nicole StAmand"<a href="mailto:shell.com">shell.com</a>, Robert Elleman/R10/USEPA/US@EPA, <a href="mailto:rsteen@airsci.com">rsteen@airsci.com</a>, Susan.Childs@shell.com, "Tim Martin" <a href="mailto:tmartin@airsci.com">tmartin@airsci.com</a>> Subject: Re: talking points for tomorrows meeting

Ken:

Yes, I will see you and others at 9 A.M., tomorrow.

Herman

"Ken Richmond" ---06/09/2010 01:06:36 PM---Herman,

Fro "Ken Richmond" <a href="mailto:krichmond@Environcorp.com">krichmond@Environcorp.com</a>>

m:

To: Herman Wong/R10/USEPA/US@EPA

Cc: Mahbubul Islam/R10/USEPA/US@EPA, Robert Elleman/R10/USEPA/US@EPA, "Nicole StAmand" <a href="mailto:stAmand@shell.com">stAmand@shell.com</a>, "Tim Martin" <a href="mailto:tmartin@airsci.com">tmartin@airsci.com</a>, "Bart Brashers" <a href="mailto:bbrashers@Environcorp.com">sbrashers@Environcorp.com</a>, "Kirk Winges" <a href="mailto:kwinges@Environcorp.com">kwinges@Environcorp.com</a>, "Eric Hansen" <a href="mailto:ehansen@Environcorp.com">ehansen@Environcorp.com</a>, <a href="mailto:smartin@airsci.com">smark.octane@me.com</a>, "Lance Tolson" <a href="mailto:Lance.Tolson@shell.com">Lance.Tolson@shell.com</a>, <a href="mailto:sriften@shell.com">streen@airsci.com</a>, <a href="mailto:susan.Childs@shell.com">susan.Childs@shell.com</a>, "Kirk Lilley" <a href="mailto:kirk.lilley@comcast.net">kirk.lilley@comcast.net</a>, "John Iani" <a href="mailto:liji@vnf.com">liji@vnf.com</a>>

Dat 06/09/2010 01:06 PM
e:
Sub talking points for tomorrows meeting ject

## Herman,

I've attached a talking points Memo for tomorrows meeting. Kirk, Bart, Tim, Nicole and I are planning to attend. I assume 9-12 is still the meeting time?

## Regards,

Ken Richmond Sr. Air Quality Scientist ENVIRON International Corp. 19020 33rd Avenue W, Suite 310 Lynnwood, WA 98036

Phone: 425.412.1800 Direct: 425.412.1809 Fax: 425.672.1840

Robert Elleman/R10/USEPA/US 08/30/2010 03:24 PM To Herman Wong

cc bcc

00.24 1 W

Subject Fw: Afterthoughts from 12 August 2010 Meeting

I didn't think that was exactly true, but it does appear as though the variability in stability is more related to synoptic forcing rather than diurnal forcing. But, there is still diurnal forcing. The daily minimum often occurs in the early morning and the daily maximum in the afternoon, just like the mid-latitudes.

----- Forwarded by Robert Elleman/R10/USEPA/US on 08/30/2010 03:17 PM -----

From: "Ken Richmond" < krichmond@Environcorp.com>

To: Herman Wong/R10/USEPA/US@EPA, <Nicole.StAmand@shell.com>, "Kirk Winges"

<kwinges@Environcorp.com>, "Bart Brashers" <br/> <b

<tmartin@airsci.com>

Cc: Robert Elleman/R10/USEPA/US@EPA

Date: 08/17/2010 09:33 AM

Subject: RE: Afterthoughts from 12 August 2010 Meeting

Would not have the day-to-night issues if AERMET is bypassed. Over the Beaufort Sea, it is just as likely to be stable as unstable during the day and in the early summer the "day" consists of most of the 24 hours.

----Original Message----

From: Wong.Herman@epamail.epa.gov [mailto:Wong.Herman@epamail.epa.gov]

Sent: Tuesday, August 17, 2010 9:13 AM

To: Nicole.StAmand@shell.com; Kirk Winges; Ken Richmond; Bart Brashers;

Tim Martin

Cc: elleman.robert@epa.gov

Subject: Afterthoughts from 12 August 2010 Meeting

## All:

Attached is a PDF file summarizing my thoughts from the 12 August 2010 meeting. The afterthoughts are not intended to be notes or requirements.

Not discussed at the meeting was the use of the KZ measurements to define the hourly mixing heights. In this case, the mixing height would be the base of the inversion. This would mean that the other boundary layer parameters would be calculated from this mixing height to maintain consistency in the AERMET output. There will no minimum mixing height. We could also read in the temperature profiles which would be used in the plume rise calculation.

I am not sure how this would work with OCD.

Yesterday, I emailed this thought to AQMG and discussed it in more detail with them this morning. They liked the idea and basically had no objections. However, they are concerned with missing data and the transition from night to day mixing heights.

Please let me know your thoughts.

#### Herman

(See attached file: ThoughtsFrom20100812Mtg.pdf)

Robert Elleman/R10/USEPA/US 10/06/2010 04:01 PM To Herman Wong

cc bcc

Subject Fw: analysis plan for OCD vs COARE-AERMOD

Ken's file was a PDF. So my comments:

- P1: The fact that OCD does not have routines for missing data, calm winds, or 98th/99th percentiles are not a reason for EPA to approve an alternative model.
- P1: The other points about the downwash algorithm, the ozone techniques, and the boundary layer parameterizations are very important.
- P2: Can you refer to a paper or something to justify the statement that "the stability of the boundary layer does not respond as a strong function of heating/cooling..."
- P2: Why mention the routines for elevated platform downwash if they are not planned?
- P2: The impacts being off-shore is more appropriate for the Chukchi than the Beaufort. Regardless, there are concerns about impacts on coastal communities.
- P3: Where does will OCD get its air temperature and RH? That was not stated in 3.1 but was referred to in 3.2.
- P5: Good plan for examining model behavior.

-----

Robert Elleman, Ph.D.
Meteorologist
EPA Region 10
Seattle, WA
elleman.robert@epa.gov

---- Forwarded by Robert Elleman/R10/USEPA/US on 10/06/2010 03:49 PM -----

From: "Ken Richmond" < krichmond@Environcorp.com>

<ehansen@Environcorp.com>, <kwinges@Environcorp.com>, <swinges@Environcorp.com>,
<bbr/>bbrashers@Environcorp.com>, <Nicole.StAmand@shell.com>, <mark.octane@me.com>

Date: 10/01/2010 01:42 PM

Subject: analysis plan for OCD vs COARE-AERMOD

[attachment "OCD vs COARE.pdf" deleted by Robert Elleman/R10/USEPA/US]

Herman & Rob,

Here's the proposed analysis plan you requested.

Ken Richmond Sr. Air Quality Scientist ENVIRON International Corp. 19020 33rd Avenue W, Suite 310 Lynnwood, WA 98036

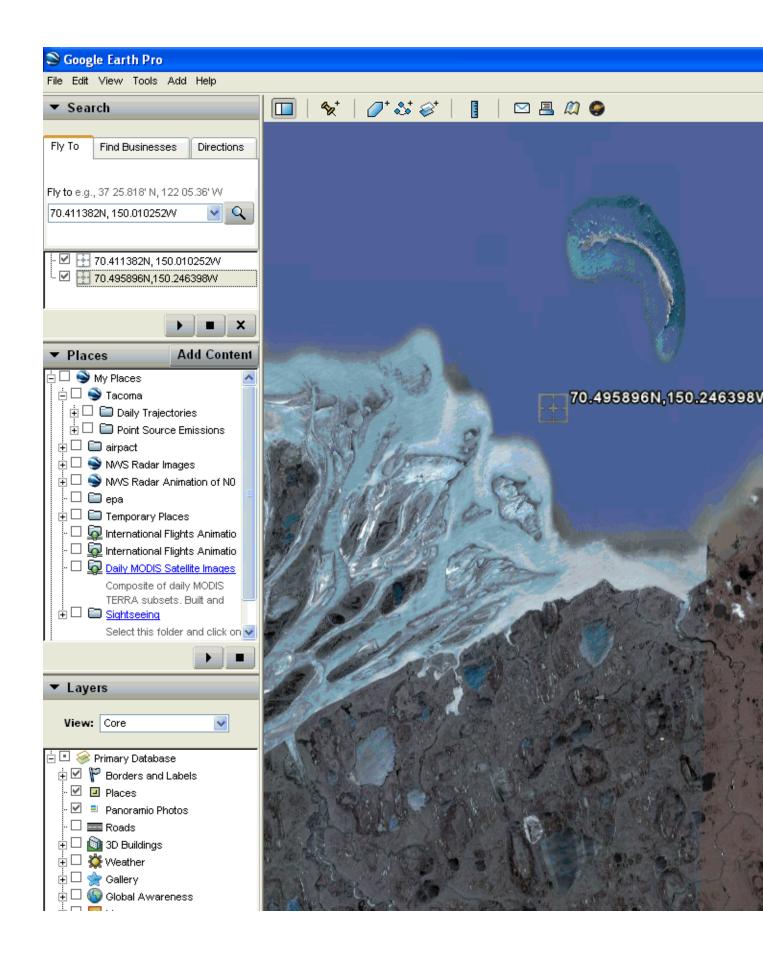
Phone: 425.412.1800 Direct: 425.412.1809 Fax: 425.672.1840

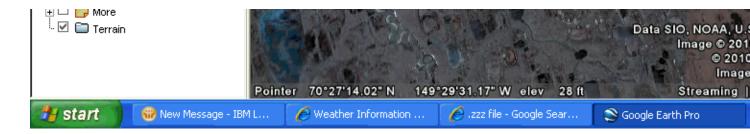
Robert Elleman/R10/USEPA/US 09/24/2010 09:34 AM To Herman Wong

cc bcc

Subject Fw: My highlights of 23 September 2010 Meeting

The land-based site is actually part of the Kuparuk unit. I think it is a reasonable site for the western part of the area. There are pads that are farther out along the shore and would be more representative, but this Oooguruk land site, "DS 3H OTP", would be a more conservative location since it is more downwind from the Kuparuk facilities than Harrison Bay or the more coastal pads.





-----

Robert Elleman, Ph.D.

Meteorologist
EPA Region 10
Seattle, WA
elleman.robert@epa.gov

\_\_\_\_\_

---- Forwarded by Robert Elleman/R10/USEPA/US on 09/24/2010 09:26 AM -----

From: Tim Martin <tmartin@airsci.com>

To: Herman Wong/R10/USEPA/US@EPA, <kwinges@Environcorp.com>
Cc: Robert Elleman/R10/USEPA/US@EPA, <krichmond@Environcorp.com>,

<nicolestamand@shell.com>

Date: 09/24/2010 09:10 AM

Subject: RE: My highlights of 23 September 2010 Meeting

#### All,

Here are the approximate coordinates for the Pioneer Oooguruk sites that we discussed yesterday.

- 1) Offshore facility: lat = 70.495896°, lon = -150.246398°
- 2) Onshore facility: lat =  $70.411382^{\circ}$ , lon =  $-150.010252^{\circ}$  (26.5 miles NE of Nuigsut and 2.5 miles south of Harrison Bay coastline).

#### -Tim

----Original Message----

From: Wong.Herman@epamail.epa.gov [mailto:Wong.Herman@epamail.epa.gov]

Sent: Friday, September 24, 2010 8:53 AM

To: kwinges@Environcorp.com

Cc: Elleman.Robert@epamail.epa.gov; krichmond@Environcorp.com;

bbrashers@Environcorp.com; swinges@Environcorp.com; tmartin@airsci.com;

nicolestamand@shell.com

Subject: Fw: My highlights of 23 September 2010 Meeting

On #5, R10 is not recommending a monitoring station at the Oooguruk island location. However, the Oooguruk land based location may be acceptable.

Thanks Rob.

---- Forwarded by Herman Wong/R10/USEPA/US on 09/24/2010 08:48 AM ----

From: Herman Wong/R10/USEPA/US

To:

<kwinges@Environcorp.com>

Cc: Robert Elleman/R10/USEPA/US@EPA, <krichmond@Environcorp.com>,
<br/>bbrashers@Environcorp.com>,

Date: 09/24/2010 07:36

AM

Subject: My highlights of 23 September 2010

Meeting

#### Kirk:

I want to pass along a few important understandings from yesterday's meeting in case you missed it and to include in your notes.

- 1. We agreed that AERMOD using marine environment boundary layer parameters is the preferred option. I will contact OAQPS to give them a more formal heads up of my decision and we would like feedback from them because of Shell's and my schedule, and its a non-guideline technique. Ken will provide us with an outline of the options for further discussion amongst ourselves and with OAQPS.
- 2. I will contact AK DEC about obtaining an allowable emission inventories for modeling analyses. The inventories could include the Exxon-Mobil PSD application at Point Thomson depending when it is submitted and deemed complete.
- 3. Although not addressed in previous applications, startup/shutdown emissions should be quantified and modeled to determine compliance with NAAOS.
- 4. I conveyed that I prefer to discuss model and meteorological data issues. Other issues such as emissions, operating scenarios and whatever can be dealt with later.
- 5. R10 does not recommend siting a monitoring station at the Oooguruk location. There is a drill rig and numerous buildings and obstacles that could influence measurements.
- R10 suggested the collection of ozone at the monitoring stations.

7. Ken asked the question if all air pollutants and their respective averaging time should be analyzed. With the new short term standards, the other averaging periods for those air pollutants do not need to be addressed.

Thanks and enjoy your vacation in Italy.

Herman Wong
Atmospheric Scientist/Regional Modeling Contact
USEPA Region 10
Office of Environmental Assessment (OEA-095)
1200 Sixth Ave, Suite 900
Seattle, WA 98101-1128
206.553.4858
Email: wong.herman@epa.gov

----- Message from <AirDataMail@epamail.epa.gov> on Thu, 23 Sep 2010 05:54:06 -0700 -----

To: "Tim Martin" <tmartin@airsci.com>

**Subject** Re: (264173554) AirData Comment - NO2 hourly concentration : data

Tim,

EPA's AQS Data Mart has hourly NO2 ambient monitoring data. The Data Mart is updated every night with the latest data in the AQS database. You can learn more about the Data Mart here:

 $\underline{http://www.epa.gov/ttn/airs/aqsdatamart/}$ 

I am attaching a sample Data Mart report of NO2 hourly monitoring data for May 1-2, 2010. The attachment is a standard .zip file, but I changed the file extension to zzz to allow it through EPA email filtering rules. The actual report is XML format, which you can import into a spreadsheet or view with Internet Explorer. (See attached file: AQDM\_RR\_203231.zzz)

Best wishes,
Tom Dessent
Lockheed Martin Corp.
Contractor for US EPA
AirData Web Technical Support
http://www.epa.gov/air/data/

(264173554) AirData Comment from Tim Martin

idaemon.rtpnc.epa.gov

to:

AirDataMail

09/22/2010 05:35 PM

### Comment

Is it possible to obtain the hourly NO2 concentration data which is utilized by the AIRS database? We would be interested in obtaining the hourly NO2 data for sites in Nevada? Is EPA aware of other data sources that would have this information?

Email\_of\_commentor tmartin@airsci.com

Name\_of\_commentor

Tim Martin

Org of commentor

Air Sciences Inc.

Previous page

 $\frac{\text{http://iaspub.epa.gov/airsdata/adaqs.monvals?geotype=st} \geq \text{ocode=NV} \geq \text{oinfo=st\%}}{7ENV\%7ENevada\&pol=NO2\&year=2008\&fld=monid\&fld=siteid\&fld=address\&fld=city\&fld=county\&fld=stabbr}$ 

&fld=regn&rpp=25

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Browser: Mozilla/5.0 (Windows; U; Windows NT 5.1; en-US; rv:1.9.2.10)

Gecko/20100914 Firefox/3.6.10 ()

Referred: http://www.epa.gov/air/data/comments.html

TSSMS: airprogm Mail to File: airdata.txt

----- [attachment "AQDM\_RR\_203231.zzz" deleted by Robert

Elleman/R10/USEPA/US]

Robert Elleman/R10/USEPA/US

To Herman Wong

10/25/2010 10:34 AM

cc bcc

Subject Fw: Use of AERMOD+COARE

The Pismo dataset has a similar Z/L but probably not other aspects of the PBL, right? Like insolation etc. How much does that matter for AERMOD-COARE? It seems we need more justification for why the Pismo dataset applies to the Arctic.

\_\_\_\_\_

Robert Elleman, Ph.D.
Meteorologist
EPA Region 10
Seattle, WA
elleman.robert@epa.gov

-----

---- Forwarded by Robert Elleman/R10/USEPA/US on 10/25/2010 10:32 AM -----

From: "Ken Richmond" < krichmond@Environcorp.com>

To: Herman Wong/R10/USEPA/US@EPA

Cc: Robert Elleman/R10/USEPA/US@EPA, <Nicole.StAmand@shell.com>,

<kwinges@Environcorp.com>, <bbrashers@Environcorp.com>

Date: 10/22/2010 03:33 PM

Subject: RE: Use of AERMOD+COARE

Herman,

We are proceeding forward with an evaluation to address:

"3.2.2.e(iv) Appropriate performance evaluations of the model have shown that the model is not biased towards underestimates"

Using a couple of the datasets from the OCD model evaluation. The Pismo Beach, CA and Cameron, LA data sets have been selected because: 1) the receptors are all along the shoreline in flat terrain and 2) the range of stabilities  $({\rm Z/L})$  are representative on conditions we've seen so far for the Beaufort Sea.

I'm not sure I can finish this in two weeks, but will attempt to have results (not a write up) by our next meeting.

I'm trying to discuss in general the differences between the two methods, but will not even attempt to explain all the differences that are apparent. I cannot come close to provide a detailed analysis by Monday as there are 1,680 hours, 14 radii of receptors, 3 averaging periods, and various model options displayed on the charts.

-Ken

----Original Message----

From: Wong.Herman@epamail.epa.gov [mailto:Wong.Herman@epamail.epa.gov]

Sent: Friday, October 22, 2010 3:05 PM

To: Ken Richmond

Cc: Elleman.Robert@epamail.epa.gov; Nicole.StAmand@shell.com
Subject: RE: Use of AERMOD+COARE

#### Ken:

To avoid any confusion between us, Shell has agreed to satisfy the third condition detailed in Section 3.2.2.e which includes limited evaluations using tracer gas experiments. You indicated in yesterday's meeting that two evaluation could be completed in two weeks. Please confirm.

In your brief description and graphical results related to the Section 3.2.2.c condition that will be going to OAQPS, could you also discuss why AERMOD is higher than OCD and vice versa. Sorry for this late request.

request.	
Thanks,	
Herman	
>   From:	
"Ken Richmond" < krichmond@Environcorp.com	
>	
Herman Wong/R10/USEPA/US@EPA	
<pre>&gt;</pre>	
>	

10/22/2010 07:19 AM 
>
>   Subject:
RE: Use of AERMOD+COARE
>
Herman
OK, I'll start working on this today and will send you something by COB Monday. I plan to modify the plan I send, revise the figs so they look better (can different curves), and provide a brief description of the results with a key to the figs.
-Ken
Original Message From: Wong.Herman@epamail.epa.gov [mailto:Wong.Herman@epamail.epa.gov] Sent: Friday, October 22, 2010 4:12 AM To: Ken Richmond Cc: Bart Brashers; Kirk Winges; Nicole.StAmand@shell.com; Elleman.Robert@epamail.epa.gov; tmartin@airsci.com Subject: RE: Use of AERMOD+COARE
Ken:
The comparison would be between COARE-AERMOD and OCD.
I would also like to have on record what other model choices and meteorology we considered but discarded because of technical and/or data reasons. So the choices would be in lieu of AERMOD-COARE using over water data (surface, buoy and profiler) just to be thorough.
Thanks,
Herman
>   From:
>
"Ken Richmond" <krichmond@environcorp.com></krichmond@environcorp.com>

<b>\</b>	
>   To:	
>	
>	
Herman Wong/R10/USEPA/US@EPA	
· >	
  >	
Cc:	
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<pre><tmartin@airsci.com>, Robert Elleman/R10/USEPA/US@EPA,</tmartin@airsci.com></pre>	
<pre><bbrashers@environcorp.com></bbrashers@environcorp.com></pre>	
>	
>   Date:	
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>	
10/21/2010 02:56 PM	
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Subject:	
' >	
RE: Use of AERMOD+COARE	
NE. OSC OI AERMODTCOARE	
>	

## Herman,

Great looks like we're making progress. Would the 3.2.2.e be justification for COARE-AERMOD vs OCD, or COARE-AERMOD vs AERMET-AERMOD? What do you mean by "other model options"? Do you mean instead of COARE-AERMOD what model choices could be make or do you mean what model options within COARE-AERMOD we want to employ?

----Original Message----

From: Wong.Herman@epamail.epa.gov [mailto:Wong.Herman@epamail.epa.gov]

Sent: Thursday, October 21, 2010 2:11 PM

To: Kirk Winges; Ken Richmond

Cc: Nicole.StAmand@shell.com; Bart Brashers; Tim Martin;

Elleman.Robert@epamail.epa.gov Subject: Use of AERMOD+COARE

#### Kirk and Ken:

I just spoke with OAQPS and we are in agreement that it would be better to use an AERMOD+COARE model for predicting concentrations in a marine environment because of its newer science (compared to OCD) and if it doesn't bias towards underprediction. Also, we both don't care for using two EPA models for estimate concentration impacts.

We discussed using Section 3.2.2.e to justify the acceptance of the model with limited demonstrations/evaluations. Could you please review this subsection and let me ne know if you can develop responses/documentations for these five elements within your timetable.

Finally, could you please send me ASAP, a PDF of the presentation with a brief summary for distribution at OAQPS and a list of other model options.

Thanks,

Herman

This message contains information that may be confidential, privileged or otherwise protected by law from disclosure. It is intended for the exclusive use of the Addressee(s). Unless you are the addressee or authorized agent of the addressee, you may not review, copy, distribute or disclose to anyone the message or any information contained within. If you have received this message in error, please contact the sender by electronic reply to email@environcorp.com and immediately delete all copies of the message.

Tami Fordham/R10/USEPA/US

03/25/2010 11:06 AM

To Rick Albright

cc Catherine Villa, Natasha Greaves

bcc

Subject Re: Shell Beaufort PSD - Government-to-Government

Consultation - THURSDAY @ 3PM??

Thanks for the reminder, I went ahead and reserved 5 U.S.C. 552(b)(6)

If anything changes I will let you know. Cathy will be on the call today with Nuiqsut, I haven't heard from Natasha as to whether or not she intends to be on the call. We haven't been able to get through to Nuiqsut to confirm this meeting.

Thanks! Tami

Rick Albright Tami, I thought we had offered to use t... 03/25/2010 07:54:09 AM

From: Rick Albright/R10/USEPA/US

To: Tami Fordham/R10/USEPA/US@EPA

Date: 03/25/2010 07:54 AM

Subject: Re: Shell Beaufort PSD - Government-to-Government Consultation - THURSDAY @ 3PM??

#### Tami,

I thought we had offered to use the EPA conference call system for this call, sonce we'll be calling in from multiple locations.

#### Tami Fordham

---- Original Message ----From: Tami Fordham

**Sent:** 03/23/2010 09:45 AM YDT

To: native.village@astacalaska.net; bkaigelak@kuukpik.com

Cc: Catherine Villa; Rick Albright; Natasha Greaves

Subject: Fw: Shell Beaufort PSD - Government-to-Government Consultation -

THURSDAY @ 3PM?? Good Morning Merna.

It was really nice meeting you last week in Nuiqsut. You had requested that I send you an email to put this Government-to-Government Consultation on the Agenda for this Thursday's regularly scheduled Tribal Council meeting. I believe the meeting is at 3PM and we will need to know what phone number to call in on.

### Please confirm.

## Thanks! Tami

## ----- Forwarded by Tami Fordham/R10/USEPA/US on 03/23/2010 09:35 AM -----

From: Tami Fordham/R10/USEPA/US

To: native.village@astacalaska.net, bkaigelak@kuukpik.com

Cc: Catherine Villa/R10/USEPA/US@EPA, Natasha Greaves/R10/USEPA/US@EPA

Date: 02/18/2010 03:18 PM

Subject: Shell Beaufort PSD - Government-to-Government Consultation

Good Afternoon! This letter will go out first thing in the morning. I wanted to make sure you received it as soon as possible. If you have any questions please let me know.

[attachment "2010 Shell Beaufort Nuiqsut G2G.pdf" deleted by Rick Albright/R10/USEPA/US] Info sheet/public notice attachment:

[attachment "Beaufort permit INFO SHEET 2.17.2010.pdf" deleted by Rick Albright/R10/USEPA/US]

Beaufort proposed permit:

[attachment "Shell Beaufort Permit 2-17-10.pdf" deleted by Rick Albright/R10/USEPA/US] Sincerely, Tami

~~Equality - With Great Respect for the People We Serve ~~~~~~~

Tami Fordham Alaska Resource Extraction Tribal Policy Advisor Tribal Trust and Assistance Unit EPA Region 10 - Alaska Operations Office 222 W 7th Avenue #19 Anchorage, AK 99513-7588

Phone: 907-271-1484

TOLL FREE: 1-800-781-0983

Fax: 907-271-3424

Region 10 EPA Home Page http://www.epa.gov

Region 10 Mining Website http://yosemite.epa.gov/r10/ECOCOMM.NSF/Programs/mining

Region 10 Grants Administration Unit http://yosemite.epa.gov/r10/omp.nsf/webpage/Region+10+Grants+Administration+Unit

\*EPA Tribal Portal http://www.epa.gov/tribal/

EPA Community Action for Renewed Environment http://www.epa.gov/CARE "Damiana, Thomas" To Christopher Hall, Herman Wong <Thomas.Damiana@aecom.co

m> cc 01/26/2010 11:27 AM bcc

Subject Invitation: Deadhorse Sampling Frequency (Jan 27 09:00 AM

PST in Teleconference)

Could we get together to talk about the appropriate minimum sampling frequency for the Deadhorse monitoring station?

Please use the following call-in information:

Phone Number: 5 U.S.C. 552(b)(6)
Participant Code: 5 U.S.C. 552(b)(6)

Thanks! Tom

"Ken Richmond" <a href="mailto:krichmond@Environcorp.com">krichmond@Environcorp.com</a>

CC

12/28/2010 11:43 AM

bcc

Subject RE: GoToMeeting Details: AERMOD COARE Dec 28th 10:30AM Pacific

Nicole.StAmand, Herman Wong, bbrashers

To Robert Elleman, "Kirk Winges", "Tim Martin", Roger Brode,

## [attachment "case1-vs-met.pdf" deleted by Robert Elleman/R10/USEPA/US]

#### All

Here are the three figures of Casel Cp/Co vs Ustar, Ta-Ts, and Z/L that were discussed during this call.

-Ken

----Original Message----

From: Elleman.Robert@epamail.epa.gov [mailto:Elleman.Robert@epamail.epa.gov]

Sent: Wednesday, December 22, 2010 2:57 PM

To: Kirk Winges; Ken Richmond; Tim Martin; Brode.Roger@epamail.epa.gov;

Nicole.StAmand@shell.com; Wong.Herman@epamail.epa.gov

Subject: GoToMeeting Details: AERMOD COARE Dec 28th 10:30AM Pacific

Here is the information for our follow-up AERMOD COARE discussion between Shell, Environ/Air Sciences, EPA R10, and EPA OAQPS.

Tuesday December 28th, 10:30AM Pacific Meeting reserved until 12:30PM but expected to end much earlier, who knows....

### 5 U.S.C. 552(b)(6)

2. Use your microphone and speakers (VoIP) - a headset is recommended. Or, call in using your telephone.

Dial 5 U.S.C. 552(b)(6)

Audio PIN: Shown after joining the meeting

Meeting ID: 5 U.S.C. 552(b)(6)

GoToMeeting®

Online Meetings Made Easy™

"Kirk Winges" <kwinges@Environcorp.com> 06/07/2011 04:04 PM

To Doug Hardesty

СС

bcc

Subject RE: Discussion about EJ analysis

Is this going to happen? Or are we going to try it tomorrow?

Kirk Winges | Principal Consultant ENVIRON International Corporation

19020 33rd Avenue W, Suite 310 Lynnwood, WA 98036 V: 425.412.1813 F: 425.412.1840

----Original Message----

From: Hardesty.Doug@epamail.epa.gov [mailto:Hardesty.Doug@epamail.epa.gov] Sent: Tuesday, June 07, 2011 2:25 PM

To: mark.octane@me.com; Pauline.Ruddy@shell.com;

Nicole.StAmand@shell.com

Cc: tmartin@airsci.com; Kirk Winges Subject: Discussion about EJ analysis

If your team is available to discuss the EJ analysis, number ready at 5:00pm mountain time... 5 U.S.C. 552(b)(6)

le

If this doesn't work, I'll try to get a call in tomorrow.

Doug Hardesty U.S. EPA Region 10 1435 N Orchard St Boise, ID 83706 208.378.5759

"Kirk Winges" <kwinges@Environcorp.com> 06/09/2011 01:00 PM

To "Mark Schindler", Doug Hardesty

cc "Pauline Ruddy", "Nicole StAmand", "Tim Martin"

bcc

Subject RE: Quick Conference call re: modeling

I'm here and will call in. I was unable to reach  $\operatorname{Tim}$  via phone. But I did leave  $\operatorname{him}$  a message about the call.

Kirk Winges | Principal Consultant ENVIRON International Corporation

19020 33rd Avenue W, Suite 310 Lynnwood, WA 98036 V: 425.412.1813 | F: 425.412.1840

----Original Message----

From: Mark Schindler [mailto:mark.octane@me.com]

Sent: Thursday, June 09, 2011 12:40 PM

To: Hardesty.Doug@epamail.epa.gov

Cc: Pauline Ruddy; Nicole StAmand; Tim Martin; Kirk Winges

Subject: Re: Quick Conference call re: modeling

I will accept in advance of obtaining confirmation from Tim and Kirk. At a minimum, we need to hear about this important item. Tim/Kirk, please confirm you can call in.

On Jun 9, 2011, at 3:19 PM, Hardesty.Doug@epamail.epa.gov wrote:

> Is there any chance we can hold a 30-min conf call with your modelers
> to discuss an important item at 2:00mountain time today?
>
> If so, here is a conf line: 5 U.S.C. 552(b)(6)
> Doug Hardesty

> Doug Hardesty
> U.S. EPA Region 10
> 1435 N Orchard St
> Boise, ID 83706
> 208.378.5759